Access DB# 96978

SEARCH REQUEST FORM

Scientific and Technical Inf rmation Center

Requester's Full Name: Medina A. Ibrahim Examiner # : 77007 Date: 6/18/03
Art Unit: 1638 Phone Number 306-5822 Serial Number: 10047825
Mail Box and Bldg/Room Location: 9E12, 9E03 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: ______

Inventors (please provide full names): ______

Earliest Priority Filing Date: ______

For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Jan Delaval
Reference Librarian
Biotechnology & Chemical Library
CM1 1E07 – 703-308-4498
jan.delaval@uspto.gov

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STAFF USE ONLY		Type of Search		Vendors and cost where applicable	
Searcher:	Jan	NA Sequence (#)		STN	✓
Searcher Phone #:	4498	AA Sequence (#)		Dialog	✓
Searcher Location:		Structure (#)		Questel/Orbit	
Date Searcher Picked Up:	6/19/03	Bibliographic	✓	Dr.Link	
Date Completed:	6/19/03	Litigation		Lexis/Nexis	
Searcher Prep & Review Time:		Fulltext		Sequence Systems	
Clerical Prep Time:	25	Patent Family		WWW/Internet	
Online Time:	+ 30	Other		Other (specify)	✓ microfilm + STIC

WEST Search History

DATE: Thursday, June 19, 2003

Set Name side by side	**Query**	**Hit Count**	**Set Name** result set
DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ			
L9	(Ducick, J)[in]	1	L9
L8	peroxidase-like and ((800/279)!.CCLS.)	1	L8
DB=USPT; PLUR=YES; OP=ADJ			
L7	peroxidase-like and ((800/279)!.CCLS.)	0	L7
DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ			
L6	peroxidase and ((800/279)!.CCLS.)	121	L6
L5	L3 and (Duvick, J)[in]	0	L5
L4	L3 and ((Duvick, J)[in])	0	L4
L3	L1 and maize	96	L3
L2	L1 and peroxidase-like	1	L2
L1	peroxidase and ((800/279)!.CCLS.)	121	L1

END OF SEARCH HISTORY

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     (FILE 'HOME' ENTERED AT 18:46:07 ON 19 JUN 2003)

     FILE 'CAPLUS, BIOSIS, MEDLINE, EUROPATFULL, AGRICOLA, CAOLD, CASREACT,
     CROPU, DGENE, DPCI, ENCOMPPAT2, FSTA, IFIPAT, INPADOC, JAPIO, NTIS,
     PAPERCHEM2, PATDD, PATDPA, PATDPAFULL, PATOSDE, PATOSEP, PATOSWO,
     PCTFULL, PCTGEN, PIRA, RAPRA, RDISCLOSURE, SYNTHLINE, ..' ENTERED AT
     18:49:05 ON 19 JUN 2003
L1             53 S PEROXIDASE (W)LIKE AND (RESISTAN? OR TOLERAN?) AND MAIZE
L2              3 S L1 NOT PY>2001
L3           3609 S PEROXIDASE AND (RESISTAN? OR TOLERAN?) AND MAIZE
L4           1547 S L3 AND (TRANSGENIC OR TRANSFORM?) (2A) PLANT
L5            925 S L4 AND PATHOGEN?
L6            474 S L5 NOT PY>2001
L7            474 DUP REM L6 (0 DUPLICATES REMOVED)
L8             51 S L7 AND PEROXIDASE (2A) (GENE OR NUCLEIC  (W) ACID OR NUCLEO
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=> d l8 3 12 18 36

L8     ANSWER 3 OF 51  EUROPATFULL  COPYRIGHT  2003 WILA

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

AN     1018553  EUROPATFULL  ED 20000723  EW 200028  FS OS
TIEN   Transgenic plants with divergent SCaM4 or SCaM5 gene
       to achieve multiple disease resistance.
TIDE   Transgene Pflanzen mit divergenten SCaM-4 und SCaM-5 Genen zur
       Etablierung multipler Krankheitsresistenz.
TIFR   Plantes transgeniques avec les genes divergents SCaM4 et SCaM5 pour
       obtenir une resistance aux maladies multiples.
IN     Heo, Won-Do, 183-3, Seonin-dong, Sacheon City, Kyungsangnam-do, KR;
       Cho, Moo-Je, 297-51, Sandae-dong, Jinju-city, Kyungsangnam-do, KR;
       Song, Pill-Soon, 102-906, Shindonga-apartment, 756-2,Weolgae-dong,
       Kwangsan-gu, Kwangju-city, KR;
       Chung, Chang-Ho, 100-1003, Hyundai-apartment, 572,Hwajung-dong, Seo-gu,
       Kwangju-city, KR
PA     Korea Kumho Petrochemical Co. Ltd., 70, Seolin-dong, Chongno-Gu, Seoul,
       KR
SO     Wila-EPZ-2000-H28-T1a
DS     R AT; R BE; R CH; R CY; R DE; R DK; R ES; R FI; R FR; R GB; R GR; R IE;
       R IT; R LI; R LU; R MC; R NL; R PT; R SE; R AL; R LT; R LV; R MK; R RO;
       R SI
PIT    EPA1 EUROPAEISCHE PATENTANMELDUNG
PI     EP 1018553          A1 20000712
OD                            20000712
AI     EP 1999-300136         19990108
IC     ICM  C12N015-29
       ICS  C12N015-82    C12N005-10    C07K014-415    A01H005-00

L8    ANSWER 12 OF 51  DGENE (C) 2003 THOMSON DERWENT
AN    AAF90225  DNA       DGENE
TI    Novel gene encoding peroxidase P7X protein, and its
      promoter, useful for producing transgenic plants that
      are resistant against nematode infections  -
IN    Padegimas L S; Reichert N A
PA    (UMIS)      UNIV MISSISSIPPI STATE.
PI    WO 2001038485 A2 20010531                34p
AI    WO 2000-US30159  20001124
PRAI  US 1999-167229   19991124
DT    Patent
LA    English
OS    2001-355920 [37]
DESC  Genomic walking primer used to isolate peroxidae P7X gene promoter.

L8     ANSWER 18 OF 51   PCTFULL   COPYRIGHT 2003 Univentio
AN     2001038485 PCTFULL  ED 20020820
TIEN   NEMATODE-UPREGULATED PEROXIDASE GENE AND PROMOTER
       FROM NEMATODE-RESISTANT MAIZE LINE Mp307
TIFR   GENE DE PEROXYDASE A REGULATION DES NEMATODES ET PROMOTEUR TIRE D'UNE
       LIGNEE DE MAIS Mp307 RESISTANT AUX NEMATODES
IN     PADEGIMAS, Linas, S.;
       REICHERT, Nancy, A.
PA     MISSISSIPPI STATE UNIVERSITY
DT     Patent
PI     WO 2001038485       A2 20010531
DS     W:          AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE
                   DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG
                   KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ
                   PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU
                   ZA ZW GH GM KE LS MW MZ SD SL SZ TZ UG ZW AM AZ BY KG KZ MD
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                RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT
                SE TR BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
AI     WO 2000-US30159     A  20001124
PRAI   US 1999-60/167,229     19991124

L8     ANSWER 36 OF 51   PCTFULL   COPYRIGHT 2003 Univentio
AN     1998056921 PCTFULL  ED 20020514
TIEN   REGULATORY SEQUENCES FOR TRANSGENIC PLANTS
TIFR   SEQUENCES REGULATRICES POUR PLANTES TRANSGENIQUES
IN     AINLEY, Michael;
       ARMSTRONG, Katherine;
       BELMAR, Scott;
       FOLKERTS, Otto;
       HOPKINS, Nicole;
       MENKE, Michael, A.;
       PAREDDY, Dayakar;
       PETOLINO, Joseph, F.;
       SMITH, Kelley;
       WOOSLEY, Aaron
PA     DOW AGROSCIENCES LLC
LA     English
DT     Patent
PI     WO 9856921          A1 19981217
DS     W:       AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI
                GB GE GH HU IL IS JP KE KG KR KZ LC LK LR LS LT LU LV MD MG
                MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT
                UA UG UZ YU ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD
                RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT
                SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG
AI     WO 1998-US11921     A  19980610
PRAI   US 1997-60/049,752     19970612
ICM    C12N015-53
ICS    C12N015-82; A01H005-00


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     (FILE 'HOME' ENTERED AT 18:46:07 ON 19 JUN 2003)

     FILE 'CAPLUS, BIOSIS, MEDLINE, EUROPATFULL, AGRICOLA, CAOLD, CASREACT,
     CROPU, DGENE, DPCI, ENCOMPPAT2, FSTA, IFIPAT, INPADOC, JAPIO, NTIS,
     PAPERCHEM2, PATDD, PATDPA, PATDPAFULL, PATOSDE, PATOSEP, PATOSWO,
     PCTFULL, PCTGEN, PIRA, RAPRA, RDISCLOSURE, SYNTHLINE, ..' ENTERED AT
     18:49:05 ON 19 JUN 2003
L1           53 S PEROXIDASE (W)LIKE AND (RESISTAN? OR TOLERAN?) AND MAIZE
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L3         3609 S PEROXIDASE AND (RESISTAN? OR TOLERAN?) AND MAIZE
L4         1547 S L3 AND (TRANSGENIC OR TRANSFORM?) (2A) PLANT
L5          925 S L4 AND PATHOGEN?
L6          474 S L5 NOT PY>2001
L7          474 DUP REM L6 (0 DUPLICATES REMOVED)
L8           51 S L7 AND PEROXIDASE (2A) (GENE OR NUCLEIC  (W) ACID OR NUCLEO

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L18   ANSWER 3 OF 3  BIOTECHNO  COPYRIGHT 2003 Elsevier Science B.V.
AN    1995:02594564   BIOTECHNO
TI    Embryogenic callus production, plant regeneration and transient gene
      expression following particle bombardment in the pasture grass,
      Cenchrus ciliaris (Gramineae)
AU    Ross A.H.; Manners J.M.; Birch R.G.
CS    Univ.Qld,Dept Bot., Brisbane, QLD 4072, Australia.
SO    Australian Journal of Botany, (1995), 43/2 (193-199)
      CODEN: AJBTAP  ISSN: 0067-1924
DT    Journal; Article
LA    English
CT    *Cenchrus ciliaris


=> fil biosis
FILE 'BIOSIS' ENTERED AT 13:10:24 ON 19 JUN 2003
COPYRIGHT (C) 2003 BIOLOGICAL ABSTRACTS INC.(R)

FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 11 June 2003 (20030611/ED)


=> d 18 2 all

L8    ANSWER 2 OF 2  BIOSIS  COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN    1995:354922  BIOSIS
DN    PREV199598369222
TI    Embryogenic callus production, plant regeneration and transient gene
      expression following particle bombardment in the pasture grass,
      Cenchrus ciliaris (Gramineae.
AU    Ross, Annette H.; Manners, John M.; Birch, Robert G. (1)
CS    (1) Dep. Botany, Univ. Queensland, Brisbane, QLD 4072 Australia
SO    Australian Journal of Botany, (1995) Vol. 43, No. 2, pp. 193-199.
      ISSN: 0067-1924.
DT    Article
LA    English
AB    Callus initiated from surface sterilised, mature seeds of buffel
      grass (Cenchrus ciliaris L.) gave rise to an
      embryogenic form when cultured on Murashige and Skoog's nutrient medium
      supplemented with 3% sucrose, 5% coconut water and 4 mg L-1 2,4-D.
      Multiple green shoots regenerated on 20% to 50% of embryogenic calli after
      transfer to hormone-free medium and incubation in the light. Variations in
      cytokinin concentration and light intensity during regeneration did not
      significantly increase the regeneration frequency or the number of shoots
      produced. Regenerated plants developed normally when transplanted to soil.
      A high frequency of transient expression of the beta-glucuronidase gene
      resulted following transfer into embryogenic callus by particle
      bombardment. This is a promising system for production of transformed
      buffel grass plants, if the frequency of shoot
      production can be increased.
CC    Genetics and Cytogenetics - Plant  *03504
      Ecology; Environmental Biology - Plant  *07506
      Biochemical Methods - Nucleic Acids, Purines and Pyrimidines  *10052
      Biochemical Studies - General   10060
      Biochemical Studies - Carbohydrates   10068
      Nutrition - General Studies, Nutritional Status and Methods   13202
      Nutrition - Carbohydrates   13220
      Developmental Biology - Embryology - Morphogenesis, General   25508
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      Tissue Culture, Apparatus, Methods and Media  *32500
      Plant Physiology, Biochemistry and Biophysics - Nutrition   51504
      Plant Physiology, Biochemistry and Biophysics - Growth, Differentiation
      *51510
      Plant Physiology, Biochemistry and Biophysics - Reproduction  *51512
      Plant Physiology, Biochemistry and Biophysics - Growth Substances   51514
      Plant Physiology, Biochemistry and Biophysics - Apparatus and Methods
      *51524
      Agronomy - Forage Crops and Fodder  *52506
      Soil Science - Fertility and Applied Studies   *52807
BC    Gramineae  *25305
IT    Major Concepts
         Agronomy (Agriculture); Development; Ecology (Environmental Sciences);
         Genetics; Methods and Techniques; Reproduction
IT    Chemicals & Biochemicals
         2,4-D; SUCROSE
IT    Miscellaneous Descriptors
         COCONUT WATER; CULTURE METHOD; DNA TRANSFER METHOD; GENETIC
         TRANSFORMATION; LIGHT INTENSITY; MURASHIGE AND SKOOG MEDIUM;
         REGENERATION; SHOOT PRODUCTION INCREASE; SUCROSE; TRANSPLANTING; 2,4-D
ORGN Super Taxa
         Gramineae: Monocotyledones, Angiospermae, Spermatophyta, Plantae
ORGN Organism Name
           Cenchrus ciliaris (Gramineae)
ORGN Organism Superterms
         angiosperms; monocots; plants; spermatophytes; vascular plants
RN    94-75-7 (2,4-D)
      57-50-1 (SUCROSE)


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     (FILE 'HOME' ENTERED AT 12:59:48 ON 19 JUN 2003)
                SET COST OFF

     FILE 'HCAPLUS' ENTERED AT 13:00:57 ON 19 JUN 2003
                E ROSS A/AU
L1           88 S E3,E14,E16
L2         1010 S ROSS A?/AU
L3            2 S L2 AND BUFFEL
L4            2 S L2 AND (CENCHRUS OR CILIARIS)
L5            7 S L2 AND PEROXIDASE
L6            1 S L5 AND L3,L4

     FILE 'HCAPLUS' ENTERED AT 13:03:23 ON 19 JUN 2003

     FILE 'BIOSIS' ENTERED AT 13:03:35 ON 19 JUN 2003
L7         1504 S ROSS A?/AU
L8            2 S L7 AND (CENCHRUS OR CILIARIS OR BUFFEL GRASS)
L9            4 S L7 AND PEROXIDASE
L10           3 S L9 NOT L8

     FILE 'MEDLINE' ENTERED AT 13:04:47 ON 19 JUN 2003
                E ROSS A/AU
L11         480 S E3,E12
L12        1240 S ROSS A?/AU
L13           1 S L11,L12 AND (CENCHRUS OR CILIARIS OR BUFFEL OR PEROXIDASE)

     FILE 'AGRICOLA' ENTERED AT 13:06:02 ON 19 JUN 2003
                E ROSS A/AU
L14         163 S ROSS A?/AU
L15           3 S L14 AND (CENCHRUS OR CILIARIS OR BUFFEL OR PEROXIDASE)
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     FILE 'BIOTECHDS' ENTERED AT 13:07:10 ON 19 JUN 2003
                E ROSS A/AU
L16          30 S E3,E6

     FILE 'BIOTECHNO' ENTERED AT 13:08:27 ON 19 JUN 2003
                E ROSS A/AU
L17         253 S E3-E20
L18           3 S L17 AND (CENCHRUS OR CILIARIS OR BUFFEL OR PEROXIDASE)

     FILE 'BIOTECHNO' ENTERED AT 13:10:12 ON 19 JUN 2003

     FILE 'BIOSIS' ENTERED AT 13:10:24 ON 19 JUN 2003

     FILE 'CROPB, CROPU' ENTERED AT 13:12:10 ON 19 JUN 2003
                E ROSS A/AU
L19          13 S E3-E5

     FILE 'LIFESCI' ENTERED AT 13:14:11 ON 19 JUN 2003
                E ROSS A/AU
L20         203 S ROSS A?/AU
L21           0 S L20 AND (CENCHRUS OR CILIARIS OR BUFFEL OR PEROXIDASE)
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Connecting via Winsock to Dialog

Logging in to Dialog

Trying 31060000009999...Open

DIALOG INFORMATION SERVICES
PLEASE LOGON:
****
ENTER PASSWORD:
****
Welcome to DIALOG

Dialog level 02.15.02D

Last logoff: 29oct02 08:54:53
Logon file001 19jun03 12:22:01
*** ANNOUNCEMENT ***
***
--File 581 - The 2003 annual reload of Population Demographics is complete. Please see Help News581 for details.

***
--File 156 - The 2003 annual reload of ToxFile is complete. Please see HELP NEWS156 for details.

***
--File 990 - NewsRoom now contains February 2003 to current records. File 992 - NewsRoom 2003 archive has been newly created and contains records from January 2003. The oldest months's records roll out of File 990 and into File 992 on the first weekend of each month. To search all 2003 records BEGIN 990, 992, or B NEWS2003, a new OneSearch category.
***
--Connect Time joins DialUnits as pricing options on Dialog. See HELP CONNECT for information.
***
--CLAIMS/US Patents (Files 340,341, 942) have been enhanced with both application and grant publication level in a single record. See HELP NEWS 340 for information.
***
--SourceOne patents are now delivered to your email inbox as PDF replacing TIFF delivery. See HELP SOURCE1 for more information.
***
--Important news for public and academic libraries. See HELP LIBRARY for more information.
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--Important Notice to Freelance Authors--
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NEW FILES RELEASED
***World News Connection (File 985)
***Dialog NewsRoom - 2003 Archive (File 992)
***TRADEMARKSCAN-Czech Republic (File 680)
***TRADEMARKSCAN-Hungary (File 681)
***TRADEMARKSCAN-Poland (File 682)
***
UPDATING RESUMED
***
RELOADED

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E10       2  AU=ROSS, AILEEN D.
E11       2  AU=ROSS, AIMEE ELIZABETH
E12       1  AU=ROSS, ALAN

          Enter P or PAGE for more
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Ref    Items  Index-term
E13       1  AU=ROSS, ALAN ALBERT
E14       1  AU=ROSS, ALAN HOWARD
E15       1  AU=ROSS, ALAN JOSEPH
E16       1  AU=ROSS, ALAN O.
E17       1  AU=ROSS, ALAN PAUL
E18       1  AU=ROSS, ALAN ROBERT
E19       1  AU=ROSS, ALAN STUART
E20       1  AU=ROSS, ALBERT
E21       1  AU=ROSS, ALBERT CLAYTON
E22       1  AU=ROSS, ALBERT E.
E23       1  AU=ROSS, ALBERT MATTHEW
E24       1  AU=ROSS, ALBERT PARKER, II

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E25       1  AU=ROSS, ALBERT PERRY
E26       1  AU=ROSS, ALBERTA BARKLEY
E27       1  AU=ROSS, ALBERTA KATHRYNE
E28       1  AU=ROSS, ALEX R.
E29       1  AU=ROSS, ALEXANDER
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E34       1  AU=ROSS, ALLAN D.
E35       1  AU=ROSS, ALLAN ERNEST
E36       1  AU=ROSS, ALLAN, C. M.

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Ref    Items  Index-term
E37       1  AU=ROSS, ALLEN F.
E38       1  AU=ROSS, ALLEN GARY
E39       1  AU=ROSS, ALLEN GUY PATRICK
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E41       1  AU=ROSS, ALONZO HARVEY, III
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E45       1  AU=ROSS, AMANDA J. LEMANCZYK
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E48       1  AU=ROSS, AMY J.

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Ref    Items  Index-term
E49       1  AU=ROSS, ANDREA JEANNE
E50       1  AU=ROSS, ANDREW FRANK
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Ref	Items	Index-term
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E3	1	AU=ROSS, ANDREW LAWRENCE
E4	1	AU=ROSS, ANDREW MICHAEL
E5	1	AU=ROSS, ANDREW PHILLIP
E6	1	AU=ROSS, ANDREW RONALD
E7	1	AU=ROSS, ANDREW ROY SEYWARD
E8	1	AU=ROSS, ANDREW SMITH
E9	1	AU=ROSS, ANDREW T.
E10	1	AU=ROSS, ANDREW W.
E11	1	AU=ROSS, ANDREW WILLIAM
E12	1	AU=ROSS, ANDY LEE

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Ref	Items	Index-term
E13	1	AU=ROSS, ANGUS RODERICK
E14	1	AU=ROSS, ANITA ANN
E15	1	AU=ROSS, ANITA KATHLEEN
E16	1	AU=ROSS, ANITA NEGRIN
E17	2	AU=ROSS, ANN
E18	1	AU=ROSS, ANN AURIOL
E19	1	AU=ROSS, ANN BROWN
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E22	1	AU=ROSS, ANN P.
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Ref	Items	Index-term
E25	1	AU=ROSS, ANNE ELIZABETH
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E27	2	AU=ROSS, ANNIE
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E30	1	AU=ROSS, ANTHONY FRANK
E31	1	AU=ROSS, ANTHONY FRANK, JR.
E32	1	AU=ROSS, ANTHONY ROGER
E33	1	AU=ROSS, ANTHONY THOMAS
E34	1	AU=ROSS, ARCHIBALD S.
E35	2	AU=ROSS, ARNOLD EPHRAIM
E36	1	AU=ROSS, ARNOLD LESTER, JR.

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E38	1	AU=ROSS, ARON DAVID
E39	1	AU=ROSS, ARTHUR HOWARTH MACNEAL
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E41	1	AU=ROSS, ARTHUR LARRY
E42	1	AU=ROSS, ARTHUR M.
E43	1	AU=ROSS, ARTHUR M., JR.
E44	1	AU=ROSS, ARTHUR MAX
E45	1	AU=ROSS, ARTHUR MELVIN
E46	1	AU=ROSS, ARTHUR REYNOLD, JR.
E47	1	AU=ROSS, ARTHUR WILLIAM

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E48        1  AU=ROSS, B. JOHN

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? s e4-e47
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              1  AU=ROSS, ANDREW PHILLIP
              1  AU=ROSS, ANDREW RONALD
              1  AU=ROSS, ANDREW ROY SEYWARD
              1  AU=ROSS, ANDREW SMITH
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              1  AU=ROSS, ANITA NEGRIN
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              1  AU=ROSS, ANTHONY FRANK
              1  AU=ROSS, ANTHONY FRANK, JR.
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              1  AU=ROSS, ANTHONY THOMAS
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              1  AU=ROSS, ARON DAVID
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              1  AU=ROSS, ARTHUR M., JR.
              1  AU=ROSS, ARTHUR MAX
              1  AU=ROSS, ARTHUR MELVIN
              1  AU=ROSS, ARTHUR REYNOLD, JR.
              1  AU=ROSS, ARTHUR WILLIAM
     S1      47  E4-E47
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                 1  AU=ROSS, ARNOLD LESTER, JR.
                 1  AU=ROSS, ARON
                 1  AU=ROSS, ARON DAVID
                 1  AU=ROSS, ARTHUR HOWARTH MACNEAL
                 1  AU=ROSS, ARTHUR L.
                 1  AU=ROSS, ARTHUR LARRY
                 1  AU=ROSS, ARTHUR M.
                 1  AU=ROSS, ARTHUR M., JR.
                 1  AU=ROSS, ARTHUR MAX
                 1  AU=ROSS, ARTHUR MELVIN
                 1  AU=ROSS, ARTHUR REYNOLD, JR.
                 1  AU=ROSS, ARTHUR WILLIAM
      S1        47  E4-E47
? ds

Set     Items   Description
S1         47   E4-E47
? s s1 and (cenchrus or ciliaris or buffel or grass? or peroxidase?)
                47  S1
                26  CENCHRUS
                32  CILIARIS
                 5  BUFFEL
              6600  GRASS?
              2468  PEROXIDASE?
      S2         0  S1 AND (CENCHRUS OR CILIARIS OR BUFFEL OR GRASS? OR
                    PEROXIDASE?)
? s s1 and (gene or genes)
                47  S1
             37721  GENE
             23112  GENES
      S3         0  S1 AND (GENE OR GENES)
? ds

Set     Items   Description
S1         47   E4-E47
S2          0   S1 AND (CENCHRUS OR CILIARIS OR BUFFEL OR GRASS? OR PEROXI-
             DASE?)
S3          0   S1 AND (GENE OR GENES)
? t1/ti,au/all

 1/TI,AU/1
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Wardship to citizenship:  Integrated education and Canadian Indian policy
change, 1945 to 1969
  Author:  %%%Ross, Andrew Phillip%%%


 1/TI,AU/2
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Queueing systems with daily cycles and stochastic demand with uncertain
parameters
  Author:  %%%Ross, Andrew Michael%%%


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Visualisation et optimisation des effets des vac damps sur le champ
vectoriel d'intensite acoustique d'une structure soumise a des impacts
repetes (French text)
  Author:  %%%Ross, Annie%%%
```

1/TI,AU/4

Deep seismic bright spots
Author: %%%Ross, Andrew Ronald%%%

1/TI,AU/5

Cranial and postcranial metric variation: Regional isolation in Eastern Europe (Bosnia and Herzegovina, Croatia)
Author: %%%Ross, Ann Helen%%%

1/TI,AU/6

Artistic collaboration: Choreographers and their creative partners
Author: %%%Ross, Ann P.%%%

1/TI,AU/7

THERAPEUTIC MECHANISMS OF PROPYLTHIOURACIL IN THE TREATMENT OF ALCOHOLIC LIVER DISEASE
Author: %%%ROSS, ARON DAVID%%%

1/TI,AU/8

METAL SPECIATION AND CHARACTERIZATION OF COPPER COMPLEXING LIGANDS IN SEAWATER USING ELECTROSPRAY IONIZATION MASS SPECTROMETRY (PH, 8-HYDROXYQUINOLINE)
Author: %%%ROSS, ANDREW ROY SEYWARD%%%

1/TI,AU/9

EXPLORING CONNECTIONS AMONG TEACHER EMPOWERMENT, TEACHER EFFICACY, TRANSFORMATIONAL LEADERSHIP, AND STUDENT ACHIEVEMENT
Author: %%%ROSS, ANTHONY THOMAS%%%

1/TI,AU/10

PREDICTORS FOR JUNG'S ATTITUDE TYPES OF EXTROVERSION AND INTROVERSION (CARL G. JUNG)
Author: %%%ROSS, ARTHUR REYNOLD, JR.%%%

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FRENCH PRONUNCIATION OF THE LATTER PART OF THE SEVENTEENTH CENTURY IN FRANCE ACCORDING TO MALARD'S TRUE FRENCH GRAMMAR
Author: %%%ROSS, ANNIE%%%

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ON INDEFINITE TERNARY NON-NULL QUADRATIC FORMS
Author: %%%ROSS, ARNOLD EPHRAIM%%%

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ON REPRESENTATION OF INTEGERS BY INDEFINITE TERNARY QUADRATIC FORMS
Author: %%%ROSS, ARNOLD EPHRAIM%%%

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VERSIONING WITH HYPERTEXT
Author: %%%ROSS, ANDREW W.%%%

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LOGISTICS PLANNING WITHIN THE SUPPLY CHAIN: A METHODOLOGY AND SOLUTION APPROACHES
Author: %%%ROSS, ANTHONY DEWAYNE%%%

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ADDING DEXTRANS (1 TO 6-ALPHA-D-GLUCANS) TO WHEAT FLOUR: EFFECTS ON FLOUR COMPONENTS, DOUGH RHEOLOGY AND END-PRODUCT QUALITY
Author: %%%ROSS, ANDREW SMITH%%%

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HAND-ME-DOWN-HEROICS: THE TRANSMISSION OF THE HEROICAL IN THE DRAMA OF THE 1570S TO THE 1590S (FARRANT THOMAS, MARLOWE CHRISTOPHER, PEELE GEORGE, GREENE ROBERT, SHAKESPEARE)
Author: %%%ROSS, ANNE ELIZABETH%%%

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SCIENCE ACHIEVEMENT IN PAPUA NEW GUINEA: MATCHING CURRICULUM DEVELOPMENT WITH ASSESSMENT STRATEGIES
Author: %%%ROSS, ANGUS RODERICK%%%

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ANGLO-SAXON TEACHING ON THE SOUL (RELIGIOUS TEACHING, AELFRIC, HOMILIES)
Author: %%%ROSS, ANN BROWN%%%

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CATEGORIZATION, CONCEPTUAL CONJUNCTION AND EXPERTISE: A CASE STUDY FROM CHEMISTRY
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CHARGE DENSITIES OF DIATOMIC MOLECULES DETERMINED BY HIGH-ENERGY ELASTIC ELECTRON SCATTERING (ELECTRON DIFFRACTION)
Author: %%%ROSS, ANDREW WILLIAM%%%

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COGNITIVE ACCOMPANIMENTS OF THE EMOTIONS OF SADNESS, ANGER, AND GRIEF
Author: %%%ROSS, ANITA ANN%%%

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AN INVESTIGATION INTO THE IMPORTANCE OF THE QUANTITY AND QUALITY OF THE MOTHER-CHILD RELATIONSHIP IN PRESCHOOL CHILDREN.
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BIOGENESIS OF THE ACETYLCHOLINE RECEPTOR AND ACETYLCHOLINESTERASE IN CULTURED MUSCLE CELLS
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THE ARMING OF AUSTRALIA: THE POLITICS AND ADMINISTRATION OF AUSTRALIA'S SELF-CONTAINMENT STRATEGY FOR MUNITIONS SUPPLY, 1901-1945
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SOCIAL DOMINANCE HIERARCHIES IN CAPTIVE GROUPS OF WHITE-CROWNED SPARROWS, ZONOTRICHIA LEUCOPHRYS LEUCOPHRYS (STATUS DETERMINANTS, STATUS SIGNAL, AGONISTIC BEHAVIOR, INTRASPECIFIC COMPETITION, DIFFERENTIAL DISTRIBUTION)
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SECURITY AND SELF-RELIANCE: MILITARY DEPENDENCE AND CONVENTIONAL ARMS PRODUCTION IN DEVELOPING COUNTRIES
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DEANS OF STUDENTS PERCEPTIONS OF ACADEMIC INVOLVEMENT IN THE FOUR-CORNER STATES REGION (ARIZONA, COLORADO, NEW MEXICO, UTAH)
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STUDIES IN THE THESSALONIAN EPISTLES IN SYRIAC
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THE DREAMER IN THE LANDSCAPE: A CRITICAL STUDY OF EMILY BRONTE'S POETRY
Author: %%%ROSS, ANN MARIE%%%

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THE IMPACT OF A COMMUNICATIONS AND LEADERSHIP TRAINING PROGRAM ON ALTERING TEACHERS' PERCEPTIONS OF THEIR PRINCIPALS' TRAITS
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A DESCRIPTIVE STUDY OF DEVELOPMENTAL EDUCATION PROGRAM IMPLEMENTATION IN SELECTED ILLINOIS COMMUNITY COLLEGES
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NATIONAL DEVELOPMENT AND SECTIONAL POLITICS: SOCIAL CONFLICT AND THE RISE OF A PROTEST MOVEMENT.
Author: %%%ROSS, ARTHUR LARRY%%%

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SUCCESS IN A BEHAVIORAL WEIGHT LOSS PROGRAM AS A FUNCTION OF CONTINGENCY CONTRACTING.
Author: %%%ROSS, ARTHUR WILLIAM%%%

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IN VIVO AND IN VITRO STUDIES OF THE GUANINE ANALOG, 6-SELENOGUANINE
Author: %%%ROSS, ANTHONY FRANK%%%

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INTELLECTUAL FUNCTIONING, DEVELOPMENTAL HISTORY, AND CLINICAL PICTURE IN PSYCHIATRIC PATIENTS WITH NORMAL EEGS AND THOSE WITH THE FOURTEEN AND SIX PER SECOND POSITIVE SPIKE EEG PATTERN.
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ECOLOGICAL ASPECTS OF THE FOOD HABITS OF SOME INSECTIVOROUS BATS
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ON THE RELATIONSHIP BETWEEN ANXIETY AND AGGRESSION IN NINE-YEAR-OLD BOYS
Author: %%%ROSS, ANN%%%

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THE APPLICATION AND USE OF PUNCHED CARDS AND INTERNATIONAL BUSINESS MACHINES IN X-RAY CRYSTAL STRUCTURE ANALYSIS
Author: %%%ROSS, ARTHUR MELVIN%%%

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QUANTUM ELECTRODYNAMICS OF NONRELATIVISTIC GASES
Author: %%%ROSS, ARTHUR HOWARTH MACNEAL%%%

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ROGER MARTIN DU GARD: PRINCIPES D'ART ET DE MORALE
Author: %%%ROSS, ANITA KATHLEEN%%%

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THE RELATION BETWEEN SOCIAL ADJUSTMENT AND ACHIEVEMENT AMONG PREADOLESCENTS
Author: %%%ROSS, ANN%%%

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THE NUCLEAR SHELL MODEL AND NUCLEAR LEVEL DENSITIES
Author: %%%ROSS, ANN AURIOL%%%

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AN INVESTIGATION OF A METHOD FOR PRE-STRESSING FLAT PLATES TO INCREASE THEIR BUCKLING STRENGTH

Author: %%%ROSS, ARTHUR L.%%%

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AGRICULTURAL LABOR AND SOCIAL LEGISLATION
Author: %%%ROSS, ARTHUR MAX%%%

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ACID HYDROLYSIS OF METHYL ACETATE IN DIOXANE - WATER MIXTURES
Author: %%%ROSS, ARTHUR M., JR.%%%

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THE PHYSICAL PROPERTIES OF CHLORINE AND OF ITS AQUEOUS SOLUTIONS WITH A
VIEW TO THE ELUCIDATION OF THE EQUILIBRIA EXISTING IN THE LATTER
Author: %%%ROSS, ARCHIBALD S.%%%
?
? ds

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Set     Items   Description
S1         47   E4-E47
S2          0   S1 AND (CENCHRUS OR CILIARIS OR BUFFEL OR GRASS? OR PEROXI-
             DASE?)
S3          0   S1 AND (GENE OR GENES)
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                E ROSS/AU
L1          223 S E3,E15-E17
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L2            2 S L1 AND (BUFFEL? OR GRASS? OR CENCHRUS OR CILIARIS OR PEROXIDA
                E ROSS/RAU
L3         2168 S E3,E20,E21
L4            1 S L2 AND L3
L5          426 S L3 (L) 1995/RPY
L6           28 S L3 (S) 1995/RPY
L7           12 S L3 AND (BUFFEL? OR GRASS? OR CENCHRUS OR CILIARIS OR PEROXIDA
L8            8 S L6 (S) (AUST J BOT OR PLANT SCI)/RWK
L9            5 S L7 AND L8
L10           6 S L2,L4,L9
L11           3 S L8 NOT L10
L12           9 S L10,L11 AND L1-L11
L13           7 S L12 NOT L1
L14           0 S L3 (S) (DISSERT? OR THESIS)/RWK
                E A/RWK
                E DIS/RWK
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=> s l12 not l13
L16           2 L12 NOT L13

=> d all tot

L16  ANSWER 1 OF 2  SCISEARCH  COPYRIGHT 2003 THOMSON ISI
AN   95:696190  SCISEARCH
GA   The Genuine Article (R) Number: RY206
TI   MOLECULAR-CLONING AND CHARACTERIZATION OF   ***PEROXIDASES FROM
     BUFFEL GRASS (CENCHRUS-CILIARIS L)
AU   ROSS A H; MANNERS J M; BIRCH R G (Reprint)
CS   UNIV QUEENSLAND, DEPT BOT, BRISBANE, QLD 4072, AUSTRALIA (Reprint); UNIV
     QUEENSLAND, DEPT BOT, BRISBANE, QLD 4072, AUSTRALIA; UNIV QUEENSLAND,
     COOPERAT RES CTR TROP PLANT PATHOL, BRISBANE, QLD 4072, AUSTRALIA
CYA  AUSTRALIA
SO   PLANT SCIENCE, (01 SEP 1995) Vol. 110, No. 1, pp. 95-103.
     ISSN: 0168-9452.
DT   Article; Journal
FS   LIFE; AGRI
LA   ENGLISH
REC  Reference Count: 42
AB      Buffel grass (Cenchrus ciliaris
     L.) peroxidase cDNAs were isolated by hybridisation to an
     oligonucleotide from a conserved region of all plant peroxidases
     and a peroxidase cDNA clone from wheat, The 36 clones isolated
     were classified into one homogenous and three apparently heterogenous
     groups by cross-hybridisation and sequence homologies. Nine cDNAs were
     subcloned, partially sequenced and identified as peroxidase
     homologues by the presence of conserved sequences. Two full-length clones
     (PX7 and PX18) were completely sequenced and the deduced protein sequences
     revealed between 38% and 77% homology to other plant peroxidases
     . The mRNAs corresponding to five peroxidase cDNAs were analysed
     by northern analysis, to test for tissue specific or wound inducible
     expression. The peroxidases encoded by three clones, including
     PX7 and PX18, were expressed preferentially in leaves. The other two
     clones showed a marked wound response in leaves. No clone was strongly
     expressed in stems. Southern blot analysis indicated that PX18 is coded
```

for by a single copy gene, whereas PX7 is represented in the **buffel grass** genome by five or six copies. This indicates the complexity of the **buffel grass** **peroxidase** gene family with respect to identification of **peroxidase** genes implicated in defence or developmental lignification.

CC PLANT SCIENCES

ST Author Keywords: MOLECULAR CLONING; **PEROXIDASE** GENE FAMILY; **BUFFEL GRASS; CENCHRUS CILIARIS;** TISSUE SPECIFIC; WOUND INDUCIBLE

STP KeyWords Plus (R): INDUCED PUTATIVE **PEROXIDASE**; HIGHLY ANIONIC **PEROXIDASE**; TRITICUM-AESTIVUM L; SEQUENCE ALIGNMENT; PHYLOGENETIC TREES; CDNA; PLANTS; INDUCTION; WHEAT; GENES

RF 93-4826 002; PHYLOGENETIC POSITION; 18S RIBOSOMAL-RNA GENE SEQUENCE; ANAEROBIC THERMOPHILIC BACTERIA
93-4847 002; HETEROLOGOUS EXPRESSION; CHROMOSOMAL DNA; GENE ENCODING METHYLMALONYL-COENZYME-A MUTASE
93-0359 001; RUMINAL FERMENTATION; INSULIN ACTION IN TYPE-2 (NON-INSULIN-DEPENDENT) DIABETES-MELLITUS; BEEF STEERS; DIGESTA KINETICS; LACTATING DAIRY-COWS
93-1177 001; RANDOM AMPLIFIED POLYMORPHIC DNA MARKERS; RFLP-BASED LINKAGE MAP; RAPD GENOTYPING COSTS

RE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)
AUSUBEL F M	1990			CURRENT PROTOCOLS MO
BARCELO A R	1989	63	31	PLANT SCI
BATE N J	1994	91	7608	P NATL ACAD SCI USA
BREDA C	1993	12	268	PLANT CELL REP
BUFFARD D	1990	87	8874	P NATL ACAD SCI USA
CAMPA A	1991	2	25	PEROXIDASES CHEM BIO
CAVAYE J	1991			BUFFEL BOOK GUIDE BU
CHIRGWIN J M	1979	18	5294	BIOCHEMISTRY-US
DOYLE J J	1990	12	13	FOCUS
FENG D F	1987	25	351	J MOL EVOL
FUJIYAMA K	1988	173	681	EUR J BIOCHEM
GERLACH W L	1979	7	1869	NUCLEIC ACIDS RES
GREPPIN H	1986			MOL PHYSL ASPECTS PL
HALPIN C	1994	6	339	PLANT J
HIGGINS D G	1992	8	189	COMPUT APPL BIOSCI
JOHANSSON A	1992	18	1151	PLANT MOL BIOL
JOSHI C P	1987	15	9627	NUCLEIC ACIDS RES
KAWAOKA A	1994	13	149	PLANT CELL REP
LAGRIMINI L M	1987	84	438	PLANT PHYSIOL
LIPMAN D J	1985	227	1435	SCIENCE
LIU T T Y	1993	102	103	PLANT PHYSIOL
LUTCKE H A	1987	6	43	EMBO J
MINSON D J	1990			FORAGE RUMINANT NUTR
MINSON D J	1980		143	GRAZING ANIMALS
NI W	1994	3	120	TRANSGENIC RES
REBMANN G	1991	16	329	PLANT MOL BIOL
REIMMANN C	1992	100	1611	PLANT PHYSIOL
RITTER D	1993	102	1351	PLANT PHYSIOL
ROBERTS E	1989	217	223	MOL GEN GENET
ROBERTS E	1988	11	15	PLANT MOL BIOL
ROSS A H	1995	43	193	AUST J BOT <--
ROTHSTEIN S J	1989	6	221	OXFORD SURVEYS PLANT
SAITOU N	1987	4	406	MOL BIOL EVOL
SAMBROOK J	1989			MOL CLONING LABORATO
SANGER F	1977	74	5463	P NATL ACAD SCI USA
SCHWEIZER P	1989	12	643	PLANT MOL BIOL
TERASHIMA N	1993		247	FORAGE CELL WALL STR

VANHUYSTEE R B	1991	2	155	PEROXIDASES CHEM BIO
VONHEIJNE G	1990	115	195	J MEMBRANE BIOL
WALTER M H	1992			PLANT GENE RES GENES
WELINDER K G	1992	2	388	CURR OPIN STRUCT BIO
WOODS D	1984	6	1	FOCUS

L16 ANSWER 2 OF 2 SCISEARCH COPYRIGHT 2003 THOMSON ISI
AN 95:446305 SCISEARCH
GA The Genuine Article (R) Number: RE730
TI EMBRYOGENIC CALLUS PRODUCTION, PLANT-REGENERATION AND TRANSIENT GENE-EXPRESSION FOLLOWING PARTICLE BOMBARDMENT IN THE PASTURE **GRASS, CENCHRUS-CILIARIS** (GRAMINEAE)
AU **ROSS A H**; MANNERS J M; BIRCH R G (Reprint)
CS UNIV QUEENSLAND, DEPT BOT, ST LUCIA, QLD 4072, AUSTRALIA (Reprint); UNIV QUEENSLAND, DEPT BOT, ST LUCIA, QLD 4072, AUSTRALIA; UNIV QUEENSLAND, CRC TROP PLANT PATHOL, ST LUCIA, QLD 4072, AUSTRALIA
CYA AUSTRALIA
SO AUSTRALIAN JOURNAL OF BOTANY, (1995) Vol. 43, No. 2, pp. 193-199. ISSN: 0067-1924.
DT Article; Journal
FS AGRI
LA ENGLISH
REC Reference Count: 19
AB Callus initiated from surface sterilised, mature seeds of **buffel grass** (**Cenchrus ciliaris** L.) gave rise to an embryogenic form when cultured on Murashige and Skoog's nutrient medium supplemented with 3% sucrose, 5% coconut water and 4 mg L(-1) 2,4-D. Multiple green shoots regenerated on 20% to 50% of embryogenic calli after transfer to hormone-free medium and incubation in the light. Variations in cytokinin concentration and light intensity during regeneration did not significantly increase the regeneration frequency or the number of shoots produced. Regenerated plants developed normally when transplanted to soil. A high frequency of transient expression of the beta-glucuronidase gene resulted following transfer into embryogenic callus by particle bombardment. This is a promising system for production of transformed **buffel grass** plants, if the frequency of shoot production can be increased.
CC PLANT SCIENCES
STP KeyWords Plus (R): CULTURED IMMATURE INFLORESCENCES; MICROPROJECTILE BOMBARDMENT; TRANSGENIC PLANTS; SOMATIC EMBRYOGENESIS; TISSUE-CULTURE; CELLS; TRANSFORMATION
RF 93-2518 001; TRANSGENIC TOBACCO; TRANSIENT EXPRESSION OF GUS REPORTER GENE; PARTICLE BOMBARDMENT; STABLE TRANSFORMATION; PLANT MERISTEMS; IMMATURE EMBRYOS
93-5740 001; SOMATIC EMBRYOGENESIS; ADVENTITIOUS SHOOT FORMATION; ANTHER CULTURE; INTERSPECIFIC ARACHIS HYBRIDS; FIELD PERFORMANCE; HYPOCOTYL PROTOPLASTS
RE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)
AHN B J	1985	25	1107	CROP SCI
AKASHI R	1992	82	213	PLANT SCI
BIRCH R G	1991	18	453	AUST J PLANT PHYSIOL
BOWER R	1992	2	409	PLANT J
CAVAYE J	1991			BUFFEL BOOK GUIDE BU
CHERNEY J H	1991	46	157	ADV AGRON
CHRISTOU P	1991	9	957	BIO-TECHNOL
FRANKS T	1991	18	471	AUST J PLANT PHYSIOL
GORDONKAMM W J	1990	2	603	PLANT CELL
HARTMAN C L	1994	12	919	BIO-TECHNOL
KACKAR A	1991	29	62	INDIAN J EXP BIOL
KLEIN T M	1988	6	559	BIOTECHNOLOGY

```
LAST D I               |1991 |81   |581   |THEOR APPL GENET
MURASHIGE T            |1962 |15   |473   |PHYSL PLANTARUM
OZIASAKINS P           |1988 |73   |565   |PHYSIOL PLANTARUM
SANKHLA A              |1989 |58   |872   |CURR SCI INDIA
VASIL V                |1991 |9    |743   |BIOTECHNOLOGY
WANG Z Y               |1992 |10   |691   |BIO-TECHNOL
ZHONG H                |1993 |13   |1     |PLANT CELL REP
```

=> d all tot l13

L13 ANSWER 1 OF 7 SCISEARCH COPYRIGHT 2003 THOMSON ISI
AN 2002:801193 SCISEARCH
GA The Genuine Article (R) Number: 595GM
TI Optimizing embryogenic callus production and plant regeneration from 'Tifton 9' bahiagrass seed explants for genetic manipulation
AU Grando M F; Franklin C I; Shatters R G (Reprint)
CS Univ Florida, Dept Agron, POB 110300, Gainesville, FL 32611 USA (Reprint); Univ Florida, Dept Agron, Gainesville, FL 32611 USA; ARS, USDA, USHRL, Ft Pierce, FL 34945 USA; Savannah State Univ, Dept Biol, Savannah, GA 31404 USA
CYA USA
SO PLANT CELL TISSUE AND ORGAN CULTURE, (DEC 2002) Vol. 71, No. 3, pp. 213-222.
Publisher: KLUWER ACADEMIC PUBL, VAN GODEWIJCKSTRAAT 30, 3311 GZ DORDRECHT, NETHERLANDS.
ISSN: 0167-6857.
DT Article; Journal
LA English
REC Reference Count: 47
AB Bahiagrass (Paspalum notatum Flugge) is a warm season forage **grass** widely cultivated in southeastern U.S. and South America. The cultivar Tifton 9 has several desirable characteristics such as high forage yield, more vigor at the seedling stage, etc.; but its forage quality is very low. As an initial step for future genetic manipulations to improve its forage characteristics, we have optimized in vitro culture conditions for plant regeneration. In this report, we describe an efficient method for embryogenic callus induction and plant regeneration from bahiagrass (cv. Tifton 9) seed explants, which are readily available and easy to manipulate, compared to other explant sources reported in the literature.

Murashige and Skoog (MS) medium containing 30 muM dicamba and 5 muM 6-benzyladenine (BA) was optimal for callus induction and growth. Out of 9734 seeds cultured, 65.7% germinated and 21.4% produced embryogenic callus on this medium. Shoot formation was best when embryogenic calluses induced in this medium were transferred to MS medium supplemented with 5 muM BA and 1 muM gibberellic acid with 1640 plantlets formed per gram fresh weight of callus tissue. When transferred to hormone-free SH medium, shoot systems produced well-developed root systems. The resulting plantlets grew normally produced viable seeds when transferred to soil in the greenhouse. Histochemical staining for GUS activity arising from transient expression of the introduced uidA (beta-glucuronidase) gene indicated that bahiagrass embryogenic callus produced by this method is suitable for gene transfer via biolistic bombardment; and it can serve as a good target tissue for future genetic manipulations to improve the forage quality of bahiagrass (cv. Tifton 9).
CC BIOTECHNOLOGY & APPLIED MICROBIOLOGY; PLANT SCIENCES
ST Author Keywords: forage **grass**; monocot; Paspalum notatum Flugge; somatic embryos; tissue culture
STP KeyWords Plus (R): TRANSGENIC SUGARCANE PLANTS; AGROSTIS-PALUSTRIS HUDS; POA-PRATENSIS L; SOMATIC EMBRYOGENESIS; MICROPROJECTILE BOMBARDMENT; KENTUCKY BLUEGRASS; PASPALUM-NOTATUM; TISSUE-CULTURE; 2,4-DICHLOROPHENOXYACETIC ACID; PARTICLE BOMBARDMENT

RE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	
AKASHI R	1993	90	73	PLANT SCI	
AKASHI R	1992	82	219	PLANT SCI	
BERLYN G P	1976		30	BOT MICROTECHNIQUE C	
BHASKARAN S	1989	64	217	ANN BOT-LONDON	
BHASKARAN S	1990	30	1328	CROP SCI	
BOVO O A	1986	124	481	J PLANT PHYSIOL	
BOVO O A	1989	65	217	PLANT SCI	
BOWER R	1992	2	409	PLANT J	
BURTON G W	1989	29	1326	CROP SCI	
CARDONA C A	1997	37	1297	CROP SCI	
CHEN Z H	1995	14	354	PLANT CELL REP	<--
CHO M J	1999	148	9	PLANT SCI	
CHRISTENSEN A H	1996	5	213	TRANSGENIC RES	
CHRISTENSEN A H	1992	18	675	PLANT MOL BIOL	
FRANKLIN C I	1990	9	443	PLANT CELL REP	
FRANKLIN C I	1991	24	199	PLANT CELL TISS ORG	
GALLOMEAGHER M	1996	36	1367	CROP SCI	
GAMBORG O L	1968	50	151	EXP CELL RES	
GENDY C	1996	15	900	PLANT CELL REP	
GENOVESI D	1992	18	189	IN VITRO CELL DEV	
GRIFFIN J D	1995	14	721	PLANT CELL REP	<--
JEFFERSON R A	1987	5	387	PLANT MOL BIOL REP	
MAROUSKY F J	1990	20	125	PLANT CELL TISS ORG	
MURASHIGE T	1962	15	473	PHYSIOL PLANTARUM	
OZIASAKINS P	1988	73	565	PHYSIOL PLANTARUM	
RITALA A	1995	85	81	EUPHYTICA	<--
ROSS A H	1995	43	193	AUST J BOT	<--
SANKHLA A	1989	58	872	CURR SCI	
SCHENK R U	1972	50	199	CAN J BOT	
SHATTERS R G	1994	34	1378	CROP SCI	
SIVAMANI E	1996	15	322	PLANT CELL REP	
SOMERS D A	1992	10	1589	BIO-TECHNOL	
VANDERVALK P	1995	40	101	PLANT CELL TISS ORG	<--
VANDERVALK P	1989	7	644	PLANT CELL REP	
VARSHNEY A	1998	40	137	BIOL PLANTARUM	
VASIL I K	1988	6	397	BIOTECHNOLOGY	
VASIL V	1981	68	864	AM J BOT	
VASIL V	1992	10	667	BIO-TECHNOL	
VITANOVA Z	1995	14	437	PLANT CELL REP	<--
WAN Y C	1994	104	37	PLANT PHYSIOL	
WAN Y	1995	196	7	PLANTA	<--
WANG D	1982	25	147	PLANT SCI LETT	
WEIGEL R C	1985	5	151	PLANT CELL TISS ORG	
WERNICKE W	1986	131	131	PROTOPLASMA	
ZHONG H	1993	13	1	PLANT CELL REP	
ZHONG H	1991	10	453	PLANT CELL REP	
ZHONG H	1992	187	483	PLANTA	

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AN 2001:975903 SCISEARCH
GA The Genuine Article (R) Number: 499AX
TI Forage and turf **grass** biotechnology
AU Wang Z Y (Reprint); Hopkins A; Mian R
CS Samuel Roberts Noble Fdn Inc, Forage Biotechnol Grp, Ardmore, OK 73401 USA (Reprint)
CYA USA
SO CRITICAL REVIEWS IN PLANT SCIENCES, (OCT 2001) Vol. 20, No. 6, pp. 573-619.
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SERVICE, BOCA RATON, FL 33431 USA.
ISSN: 0735-2689.
DT General Review; Journal
LA English
REC Reference Count: 404

AB Forage and turf **grasses** are the backbone of sustainable agriculture and contribute extensively to the world economy. They play a major role in providing high quality and economical meat, milk, and fiber products and are important in soil conservation, environmental protection, and outdoor recreation. Conventional breeding contributed substantially to the genetic improvement of forage and turf **grasses** in the last century. The relatively new developments in genetic manipulation of these species open up opportunities for incorporating cellular and molecular techniques into **grass** improvement programs. For some commonly used forage and turf species, significant advances have been achieved in the following areas: (1) establishment of a tissue culture basis for the efficient regeneration of fertile and genetically stable plants, (2) generation of transgenic plants by biolistic transformation and direct gene transfer to protoplasts, (3) recovery of intergeneric somatic **grass** plants by protoplast fusion, (4) development of molecular markers for marker assisted selection, and (5) sequencing of expressed sequenced tags and the development of DNA array technologies for gene discovery. Although difficulties still exist in genetic manipulation of these recalcitrant monocot species, impressive progress has been made toward the generation of value-added novel **grass** germplasm incorporating traits such as improved forage quality. The joint efforts of molecular biologists and plant breeders make the available biotechnological methods a useful tool for accelerating forage and turf **grass** improvement.

CC PLANT SCIENCES
ST Author Keywords: forage **grasses**; turf **grasses**; tissue culture; plant regeneration; genetic transformation; transgenic plants; somatic hybrids; molecular markers
STP KeyWords Plus (R): FESTUCA-ARUNDINACEA SCHREB; LOLIUM-PERENNE L; CELL-SUSPENSION-CULTURES; DIRECT GENE-TRANSFER; AGROSTIS-PALUSTRIS HUDS; PANICUM-MAXIMUM JACQ; POA-PRATENSIS L; PENNISETUM-PURPUREUM SCHUM; KENTUCKY BLUEGRASS CULTIVARS; ASYMMETRIC SOMATIC HYBRIDIZATION

RE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)
ABDULLAH A A	1994	112	342	PLANT BREEDING
AHLOOWALIA B S	1983	23	1141	CROP SCI
AHLOOWALIA B S	1975	15	449	CROP SCI
AHN B J	1985	25	1107	CROP SCI
AHN S	1993	241	483	MOL GEN GENET
AHN B J	1987	27	594	CROP SCI
AKASHI R	1992	82	219	PLANT SCI
AKASHI R	1993	90	73	PLANT SCI
AKASHI R	1992	82	213	PLANT SCI
AKASHI R	1991	41	85	JPN J BREED
AKKAYA M S	1992	132	1131	GENETICS
ALDERSON J	1995			GRASS VARIETIES US <--
ALM V	2000		64	MOL BREEDING FORAGE
ALTPETER F	1994	113	327	PLANT BREEDING
ARCIONI S	1983	32	33	EUPHYTICA
ARTUNDUAGA I R	1988	12	13	PLANT CELL TISSUE OR
ARTUNDUAGA I R	1989	25	753	IN VITRO CELL DEV B
ASANO Y	1991	79	247	PLANT SCI
ASANO Y	1990	72	267	PLANT SCI
ASANO Y	1989	8	141	PLANT CELL REP
ASANO Y	1994	13	243	PLANT CELL REP
ASAY K H	1986	39	261	J RANGE MANAGE

ASAY K H	1985	25	575	CROP SCI	
ASAY K H	1989	15	1	CSSA SPEC PUBL	
BALFOURIER F	1994	73	386	HEREDITY	
BALFOURIER F	1994	72	55	HEREDITY	
BAN Y	1971	21	77	B FAC AGR KAGASHIMA	
BANTE I	1990		105	IMPACT BIOTECHNOLOGY	
BARNES R F	1995	1	3	INTRO GRASSLAND AGR	<--
BEEVER D E	1993		158	GRASSLAND OUR WORLD	
BENNETZEN J L	1993	9	259	TRENDS GENET	
BERGELSON J	1999		325	APPL PLANT BIOTECHNO	
BERNARDVAILHE M A	1996	44	1164	J AGR FOOD CHEM	
BERNARDVAILHE M A	1996	72	385	J SCI FOOD AGR	
BERT P F	1999	99	445	THEOR APPL GENET	
BHALLA P L	1999	96	11676	P NATL ACAD SCI USA	
BINGHAM T B	1995	2	21	FORAGES	<--
BLANCHE F C	1986	26	1245	CROP SCI	
BLENDA A V	2001	9	194	PLANT ANIMAL GENOME	
BOPPENMEIER J	1989	103	216	PLANT BREEDING	
BOUDET A M	1996	2	25	MOL BREEDING	
BOVO O A	1986	124	481	J PLANT PHYSIOL	
BOYD L A	1986	97	246	PLANT BREEDING	
BRUMMER E C	1993	86	329	THEOR APPL GENET	
BUCKNER R C	1977	17	672	CROP SCI	
BUCKNER R C	1983	23	399	CROP SCI	
BUXTON D R	1988	28	553	CROP SCI	
CAETANOANOLLES G	1991	9	553	BIO-TECHNOL	
CAETANOANOLLES G	1991	9	294	PL MOL BIOL REP	
CALLAHAN L M	1993	7	761	INT TURFGRASS SOC RE	
CASLER M D	2000	40	13	CROP SCI	
CASLER M D	2000	40	1019	CROP SCI	
CHAI B L	1998	38	1320	CROP SCI	
CHANDLER S F	1984	117	147	J PLANT PHYSIOL	
CHAPMAN H D	1972	34	373	J ANIM SCI	
CHARMET G	1997	94	1038	THEOR APPL GENET	
CHARMET G	2000		50	MOL BREED FOR CROPS	
CHARMET G	1993	40	77	GENET RES CROP EVOL	
CHARMET G	1994	87	641	THEOR APPL GENET	
CHARMET G	1994	41	175	GENET RESOUR CROP EV	
CHATTERTON N J	1991	29	367	PLANT PHYSIOL BIOCH	
CHEN C H	1977	17	847	CROP SCI	
CHEN C H	1979	19	117	CROP SCI	
CHEN C	1999	39	1676	CROP SCI	
CHEN C	1997	37	76	CROP SCI	
CHEN C	1998	97	255	THEOR APPL GENET	
CHERNEY J H	1991	46	157	ADV AGRON	
CHO M J	2000	19	1084	PLANT CELL REP	
CHRISTOU P	1992	2	275	PLANT J	
COBB B G	1985	40	121	PLANT SCI	
COLLINS F S	1998	8	1229	GENOME RES	
CONGER B V	1978	18	157	CROP SCI	
CONGER B V	1983	221	850	SCIENCE	
CREEMERSMOLENAAR J	1989	63	167	PLANT SCI	
CREEMERSMOLENAA.J	1988	57	165	PLANT SCI	
CROUGHAN S S	1994	34	542	CROP SCI	
DAHLEEN L S	1990	79	39	THEOR APPL GENET	
DALE P J	1980	100	73	Z PFLANZENPHYSIOL	
DALE P J	1981	1	47	PLANT CELL TISSUE OR	
DALTON S J	1988	132	170	J PLANT PHYSL	
DALTON S J	1999	18	721	PLANT CELL REP	
DALTON S J	1995	108	63	PLANT SCI	<--
DALTON S J	1988	12	137	PLANT CELL TISSUE OR	
DALTON S J	1998	312	31	PLANT SCI	
DELOZIER V	1999	19	145	AGRONOMIE	

DENCHEV P D	1997	16	813	PLANT CELL REP	
DENCHEV P D	1995	40	43	PLANT CELL TISS ORG	<--
DENCHEV P D	1994	34	1623	CROP SCI	
DUNCAN R R	1996	58	201	ADV AGRON	
DUSSLE C M	2001	9		PLANT ANIMAL GENOME	
DUVICK D N	1984		15	GENETIC CONTRIBUTION	
EAPEN S	1989	61	27	PLANT SCI	
EBSKAMP M J M	1994	12	272	BIOTECHNOLOGY	
ECHENIQUE V	1996	46	123	PLANT CELL TISS ORG	
EHLKE N J	1986	26	1123	CROP SCI	
EICHHORN M M	1986	26	835	CROP SCI	
EIZENGA G C	1990	22	7	PLANT CELL TISS ORG	
EIZENGA G C	1991	51	249	EUPHYTICA	
EIZENGA G C	1989	32	373	GENOME	
EUJAYL I	2001			IN PRESS THEOR APPL	
EVANS D A	1989	5	46	TRENDS GENET	
FLADUNG M	1986	3	169	PLANT CELL REP	
FOURNIER D	1996	46	165	PLANT CELL TISS ORG	
FRAME B R	1994	6	941	PLANT J	
FRANKLIN C I	1990	9	443	PLANT CELL REP	
FROMM M E	1986	319	791	NATURE	
FUJIMORI M	2000		52	MOL BREED FOR CROPS	
GABRIELSEN B C	1990	30	1313	CROP SCI	
GALE M D	1998	95	1971	P NATL ACAD SCI USA	
GALLINET W C	1977		1	CORN CORN IMPROVEMEN	
GAMBORG O L	1976	12	473	IN VITRO-J TISSUE CU	
GARCIA A	1994	73	355	HEREDITY	
GAVIN A L	1989	103	251	PLANT BREEDING	
GILLILAND T J	1982	10	415	SEED SCI TECHNOL	
GLEWEN K L	1984	24	137	CROP SCI	
GONZALES R A	1987	23	581	IN VITRO CELL DEV	
GRATTAPAGLIA D	1994	137	1121	GENETICS	
GRAY D J	1984	122	196	PROTOPLASMA	
GUO D J	2001	13	73	PLANT CELL	
GUPTA P K	1996	70	45	CURR SCI INDIA	
GUTHRIDGE K M	2001	9	141	PLANT ANIMAL GENOME	
GYULAI G	1992	11	266	PLANT CELL REP	
HA D B D	1982	108	317	Z PFLANZENPHYSIOL	
HA S B	1992	11	601	PLANT CELL REP	
HALBERG N	1990	105	89	PLANT BREEDING	
HALPIN C	1994	6	339	PLANT J	
HANNA W W	1984	67	155	THEOR APPL GENET	
HANNING G E	1986	123	23	J PLANT PHYSIOL	
HARTMAN C L	1994	12	919	BIO-TECHNOL	
HAUPTMANN R M	1987	6	265	PLANT CELL REP	
HAUPTMANN R M	1988	86	602	PLANT PHYSIOL	
HAYDU Z	1981	59	269	THEOR APPL GENET	
HAYWARD M D	1988	101	24	PLANT BREEDING	
HAYWARD M D	1998	117	451	PLANT BREEDING	
HAYWARD M D	1977	79	59	Z PFLANZENZUCHT	
HAYWARD M D	1990	104	68	PLANT BREEDING	
HEATH R	1998	153	649	J PLANT PHYSIOL	
HELENTJARIS T G	1992		357	PLANT BREEDING 1990S	
HENSGENS L A M	1993	22	1101	PLANT MOL BIOL	
HESZKY L E	1989	8	174	PLANT CELL REP	
HEYSER J W	1982	22	1070	CROP SCI	
HIEI Y	1994	6	271	PLANT J	
HIGGINS T J	1989		441	BIOL WOOL HAIR	
HIRATA M	2000		51	MOL BREE FOR CROPS 2	
HOPKINS A A	1993	33	253	CROP SCI	
HORN M E	1988	7	371	PLANT CELL REP	
HORN M E	1988	7	469	PLANT CELL REP	
HOUSLEY T L	1993		191	SCI TECHNOLOGY FRUCT	

HU W J	1999	17	808	NAT BIOTECHNOL	
HUFF D R	1993	86	927	THEOR APPL GENET	
HULBERT S H	1990	87	4251	P NATL ACAD SCI USA	
HUMPHREYS M O	1992	59	141	EUPHYTICA	
HUMPHREYS M O	1997	3	71	P 18 INT GRASSL C WI	
HUMPHREYS M W	1991	34	59	GENOME	
INOKUMA C	1996	15	737	PLANT CELL REP	
ISHIDA Y	1996	14	745	NAT BIOTECHNOL	
JACKSON J A	1986		85	PLANT TISSUE ITS AGR	
JACKSON J A	1988	132	351	J PLANT PHYSIOL	
JACKSON J A	1989	8	161	PLANT CELL REP	
JAGLOOTTOSEN K R	1998	280	104	SCIENCE	
JAUHAR P P	1993	18		MONOGRAPHS THEORETIC	
JONES E L	1991	30	163	IRISH J AGR RES	
JONES E S	2000		48	MOL BREED FOR CROPS	
JUNG H G	1986	62	1703	J ANIM SCI	
KAEPPLER H F	1992	84	560	THEOR APPL GENET	
KAO K N	1973	212	207	C INT CNRS	
KASPERBAUER M J	1985	25	1091	CROP SCI	
KASPERBAUER M J	1979	19	457	CROP SCI	
KASPERBAUER M J	1980	20	103	CROP SCI	
KASUGA M	1999	17	287	NAT BIOTECHNOL	
KAUL K	1990		13	BIOTECHNOLOGY TALL F	
KLEIN T M	1993	4	583	CURR OPIN BIOTECH	
KORTT A A	1991	195	329	EUR J BIOCHEM	
KRANS J V	1982	22	1193	CROP SCI	
KUAI B	1996	15	804	PLANT CELL REP	
KUBIK C	1999	39	1136	CROP SCI	
KUO Y J	1993	33	1394	CROP SCI	
KWOK P Y	1996	31	123	GENOMICS	
LALLEMAND J	1991	4	11	PLANT VAR SEEDS	
LARKIN P J	1981	60	197	THEOR APPL GENET	
LEACH C R	1987	58	303	HEREDITY	
LEE L	1996	36	401	CROP SCI	
LEE L	1996	115	1	PLANT SCI	
LEMIEUX B	1998	4	277	MOL BREEDING	
LINSMAIER E M	1965	18	100	PHYSIOL PLANTARUM	
LIVESEY V	1991	55	73	EUPHYTICA	
LO P F	1980	20	363	CROP SCI	
LOCKHART D J	2000	405	827	NATURE	
LOWE K W	1979	19	397	CROP SCI	
LU C	1982	69	77	AM J BOT	
LU C	1981	59	275	THEOR APPL GENET	
LU C Y	1981	104	311	Z PFLANZENPHYSIOL	
MADSEN S	1995	114	165	PLANT BREEDING	<--
MARKERT C L	1959	45	753	P NATL ACAD SCI USA	
MAROUSKY F J	1990	20	125	PLANT CELL TISS ORG	
MARSHALL E	1999	284	406	SCIENCE	
MCALISTER F M	1998	25	225	AUST J PLANT PHYSIOL	
MCBRIDE K E	1995	13	362	BIO-TECHNOL	<--
MCCLENDON M T	2001	9	183	PLANT ANIMAL GENOME	
MCDONNELL R E	1984	24	573	CROP SCI	
MCFARLANE N	2000		83	MOL BREEDING FORAGE	
MCMILLIN D E	1983		3	ISOZYMES PLANT GEN A	
MCNABB W C	1994	64	53	J SCI FOOD AGR	
METZINGER B D	1987	10	31	PLANT CELL TISS ORGA	
MIAN M A R	2001	9	73	PLANT ANIMAL GENOME	
MIAN M A R	2000		146	MOL BREED FOR CROPS	
MICHELMORE R W	1991	88	9828	P NATL ACAD SCI USA	
MIKKELSEN T R	1996	380	31	NATURE	
MILLER D A	1995	1	117	FORAGES	<--
MOHANTY B D	1985	5	147	PLANT CELL TISS ORG	
MORRISH F M	1990	80	409	THEOR APPL GENET	

MORRISON R A	1988	6	684	BIO-TECHNOL	
MOSER L E	1996		1	COOL SEASON FORAGE G	
MUCCIARELLI M	1993	35	267	PLANT CELL TISS ORG	
MUELLER U G	1999	14	389	TRENDS ECOL EVOL	
MURASHIGE T	1962	15	473	PHYSIOL PLANTARUM	
MURRAY F R	1992	233	1	MOL GEN GENET	
NAGARATHNA K C	1993	90	53	PLANT SCI	
NAYAK P	1989	8	296	PLANT CELL REP	
NELSON C J	1995	1	15	FORAGES	<--
NI W T	1994	3	120	TRANSGENIC RES	
NIELSEN K A	1993	12	537	PLANT CELL REP	
NIELSEN G	1980	92	49	HEREDITAS	
NIELSEN K A	1993	141	589	J PLANT PHYSIOL	
NIIZEKI M	1977	58	343	J FACUL AGR HOKKAIDO	
NITZSCHE W	1970	57	199	NATURWISSENSCHAFTEN	
NITZSCHE W	1977		46	HAPLOIDS PLANT BREED	
OHMURA T	1993	7	754	INT TURF SOC RES J	
OLESEN A	1995	86	199	EUPHYTICA	<--
OLESEN A	1988	101	60	PLANT BREEDING	
OLSON M	1989	245	1434	SCIENCE	
OPSAHLFERSTAD H G	1994	13	594	PLANT CELL REP	
OPSAHLFERSTAD H G	1994	89	133	THEOR APPL GENET	
ORSKOV E R	1990		161	RUMEN ECOSYSTEM	
ORTIZ J P A	1997	95	850	THEOR APPL GENET	
OSUNAAVILA P	1995	40	33	PLANT CELL TISS ORG	<--
PARAN I	1993	85	985	THEOR APPL GENET	
PARK C H	1990	104	184	PLANT BREEDING	
PARK C H	1989	8	289	PLANT CELL REP	
PARK C H	1989	102	208	PLANT BREEDING	
PASAKINSKIENE I	2000	100	384	THEOR APPL GENET	
PASZKOWSKI J	1984	3	2717	EMBO J	
PATERSON A H	1995	269	1714	SCIENCE	<--
PENMETSA R V	1994	100	171	PLANT SCI	
PEREZ M	1990	265	16210	J BIOL CHEM	
PEREZVICENTE R	1993	142	610	J PLANT PHYSIOL	
PEREZ T	1998	7	1347	MOL ECOL	
PILONSMITS E A H	1995	107	125	PLANT PHYSIOL	<--
PIUS J	1993	32	91	PLANT CELL TISS ORG	
POLOK K	1998		157	BREEDING MULTIFUNCTI	
POTRYKUS I	1995		55	GENE TRANSFER PLANTS	<--
POTRYKUS I	1990	8	535	BIO-TECHNOL	
POTRYKUS I	1986	118	549	METHOD ENZYMOL	
POTRYKUS I	1985	199	183	MOL GEN GENET	
RADOJEVIC I	1994	45	901	AUST J AGR RES	
RAJASEKARAN K	1986	73	4	THEOR APPL GENET	
RAJOELINA S R	1990	104	265	PLANT BREEDING	
RANGAN T S	1974	72	456	Z PFLANZENPHYSIOL	
RANGAN T S	1976	78	208	Z PFLANZENPHYSIOL	
RANGAN T S	1983	109	49	Z PFLANZENPHYSIOL	
RASHID H	1996	15	727	PLANT CELL REP	
REED J N	1985	25	277	ENVIRON EXP BOT	
REIS P J	1979		223	PHYSL ENV LIMITATION	
RICHARDS H A	2001	20	48	PLANT CELL REP	
ROGERS G E	1990	8	6	TRENDS BIOTECHNOL	
ROLDANRUIZ I	2000	6	125	MOL BREEDING	
ROSE J B	1987	60	191	ANN BOT-LONDON	
ROSS A H	1995	43	193	AUST J BOT	<--
ROYLANCE J T	1994	34	1369	CROP SCI	
RUIZ I R	1997		231	ADV BIOMETRICAL GENE	
RYDER M L	1968		359	WOOL GROWTH	
SAITO K	1973	21	1	B FAC AGR HIROSAKI U	
SAMANTARAY S	1995	40	37	PLANT CELL TISS ORG	<--
SAMANTARAY S	1997	47	119	PLANT CELL TISSUE OR	

SANFORD J C	1988	6	299	TRENDS BIOTECHNOL	
SANGWAN R S	1975	75	256	Z PFLANZENPHYSIOL	
SANKHLA A	1992	11	368	PLANT CELL REP	
SAUL M W	1990	11	176	DEV GENET	
SCHENA M	1998	16	301	TRENDS BIOTECHNOL	
SCHENA M	1995	270	467	SCIENCE	<--
SEAL A G	1983	50	225	HEREDITY	
SEWALT V J H	1997	45	1977	J AGR FOOD CHEM	
SEWALT V J H	1997	115	41	PLANT PHYSIOL	
SHATTERS R G	1994	34	1378	CROP SCI	
SHENOY V B	1992	83	947	THEOR APPL GENET	
SIDOLI A	1993	268	21819	J BIOL CHEM	
SINGH M B	1991	88	1384	P NATL ACAD SCI USA	
SIVADAS P	1990	9	93	PLANT CELL REP	
SKENE K G M	1983	90	130	Z PFLANZENZUCHT	
SLEPER D A	1985	3	313	PLANT BREEDING REV	
SONGSTAD D D	1986	26	827	CROP SCI	
SOUTHERN E M	1975	98	503	J MOL BIOL	
SPANGENBERG G	1994	97	83	PLANT SCI	
SPANGENBERG G	1995	108	209	PLANT SCI	<--
SPANGENBERG G	1994	88	509	THEOR APPL GENET	
SPANGENBERG G	1995	85	235	EUPHYTICA	<--
SPANGENBERG G	1995	145	693	J PLANT PHYSIOL	<--
SPANGENBERG G	2000	46	172	BIOTECHNOLOGY AGR FO	
SPANGENBERG G	1995	34	183	BIOTECHNOL AGRIC FOR	<--
SPANGENBERG G	1998	18		MONOGRAPHS THEORETIC	
SPANGENBERG G	2001		1	MOL BREEDING FORAGE	
SPANGENBERG G	1998	4	162	CELL BIOL LAB HDB	
SPANGENBERG G	1995		293	GENE TRANSFER PLANTS	<--
SPRENGER N	1995	92	11652	P NATL ACAD SCI USA	<--
STADELMANN F J	1998	117	37	PLANT BREEDING	
STADELMANN F J	1999	39	375	CROP SCI	
STADELMANN F J	1998	96	634	THEOR APPL GENET	
STAMMERS M	1995	74	19	HEREDITY	<--
STANIS V A	1984	275	249	DOKL AKAD NAUK	
STEBBINS G L	1971			CHROMOSOME EVOLUTION	
STEWART C N	2000	29	832	BIOTECHNIQUES	
STONE B A	1994	37	349	NEW ZEAL J AGR RES	
SUN G L	1999	42	420	GENOME	
SUN G L	1997	40	806	GENOME	
SUN G L	1998	96	676	THEOR APPL GENET	
SVAB Z	1993	90	913	P NATL ACAD SCI USA	
SVITASHEV S	1998	41	120	GENOME	
SWEDLUND B	1985	69	575	THEOR APPL GENET	
SWEENEY P M	1997	32	1212	HORTSCIENCE	
TAKAMIZO T	1990	72	125	PLANT SCI	
TAKAMIZO T	1994	28	200	JARQ	
TAKAHASHI A	1984	36	161	PLANT SCI LETT	
TAKAMIZO T	1991	231	1	MOL GEN GENET	
TALWAR M	1989	64	195	ANN BOT-LONDON	
TANKSLEY S D	1989	7	257	BIO-TECHNOL	
TAYLOR M G	1991	10	120	PLANT CELL REP	
TERAKAWA T	1992	11	457	PLANT CELL REP	
TERRELL E E	1966	32	138	BOT REV	
TINGAY S	1997	11	1369	PLANT J	
TOLLENAAR M	1999	39	1597	CROP SCI	
TORELLO W A	1984	24	1037	CROP SCI	
TORELLO W A	1984	19	56	HORTSCIENCE	
TORELLO W A	1985	20	938	HORTSCIENCE	
TYAGI A K	1985	4	115	PLANT CELL REP	
USECHE F	2001	9	144	PLANT ANIMAL GENOME	
VALLES M P	1993	12	101	PLANT CELL REP	
VANARK H F	1991	27	275	PLANT CELL TISS ORG	

VANDERMAAS H M	1994	24	401	PLANT MOL BIOL	
VANDERMEER I M	1994	6	561	PLANT CELL	
VANDERVALK P	1989	7	644	PLANT CELL REP	
VANDERVALK P	1995	40	101	PLANT CELL TISS ORG	<--
VANDEYNZE A E	1995	249	349	MOL GEN GENET	<--
VASIL V	1982	143	454	BOT GAZ	
VASIL V	1980	56	97	THEOR APPL GENET	
VASIL I K	1988	6	397	BIOTECHNOLOGY	
VASIL V	1983	111	233	Z PFLANZENPHYSIOL	
VASIL I K	1987	128	193	J PLANT PHYSIOL	
VASIL I K	1995		5	CURRENT ISSUES PLANT	<--
VASIL V	1988	7	499	PLANT CELL REP	
VASIL V	1981	68	864	AM J BOT	
VASIL I K	1999		9	PLANT BIOTECHNOLOGY	
VILLAMIL C B	1982	22	786	CROP SCI	
VOGEL K P	1991	31	1388	CROP SCI	
VOGEL K P	2001	20	15	CRIT REV PLANT SCI	
VOGEL K P	1981	21	35	CROP SCI	
VOS P	1995	23	4407	NUCLEIC ACIDS RES	<--
WAN C H	1996	148	718	J PLANT PHYSIOL	
WANG Z Y	2001	9	25	PLANT ANIMAL GENOME	
WANG L	1996	15	865	PLANT CELL REP	
WANG Z Y	1992	10	691	BIO-TECHNOL	
WANG Z Y	1995		295	GENE TRANSFER PLANTS	<--
WANG D	1982	25	147	PLANT SCI LETT	
WANG D Y	1984	3	88	PLANT CELL REP	
WANG G L	1994	136	1421	GENETICS	
WANG Z Y	1994	103	93	PLANT SCI	
WANG G R	1997	151	83	J PLANT PHYSIOL	
WANG Z Y	1993	94	179	PLANT SCI	
WANG Z Y	1993	12	95	PLANT CELL REP	
WANG W	2000	20	219	SPECTROSC SPECT ANAL	
WANG Z Y	2001			IN PRESS PLANT CELL	
WANG Z Y	1995		81	CURRENT ISSUES PLANT	<--
WARNKE S E	1998	38	817	CROP SCI	
WARNKE S E	2001	9	26	PLANT ANIMAL GENOME	
WARNKE S E	1997	37	203	CROP SCI	
WATSON L	1992			GRASS GENERA WORLD	
WEEDEN N F	1985	65	985	CAN J PLANT SCI	
WEHNER D J	1976	16	475	CROP SCI	
WENZEL G	1984	1	311	CELL CULTURE SOMATIC	
WENZEL G	1995		127	CURRENT ISSUES PLANT	<--
WU L	1986	51	125	CYTOLOGIA	
WU L	1994	119	126	J AM SOC HORTIC SCI	
WU L	1978	65	268	AM J BOT	
WU L	1984	24	763	CROP SCI	
WU X L	1997	1	35	P 18 INT GRASSL C WI	
XIAO L	1997	16	874	PLANT CELL REP	
XU M	2001	9	142	PLANT ANIMAL GENOME	
XU W W	1991	34	686	GENOME	
XU W W	1995	91	947	THEOR APPL GENET	<--
XU W W	1992	32	1366	CROP SCI	
XU W W	1994	88	685	THEOR APPL GENET	
XU W W	1994	34	246	CROP SCI	
YANESHITA M	1993	87	129	THEOR APPL GENET	
YANESHITA M	1993	7	786	INT TURFT SOC RES J	
YE X	1997	16	379	PLANT CELL REP	
YE X D	2001	20	205	PLANT CELL REP	
YU T T	2000	133	229	HEREDITAS	
ZAGHMOUT O M F	1988	23	615	HORTSCIENCE	
ZAGHMOUT O M F	1989	29	815	CROP SCI	
ZAGHMOUT O M F	1992	11	142	PLANT CELL REP	
ZAGHMOUT O M	1990	26	419	IN VITRO CELL DEV B	

ZHANG L H	1999	98	895	THEOR APPL GENET
ZHONG H	1993	13	1	PLANT CELL REP
ZHONG H	1991	10	453	PLANT CELL REP
ZHU Y	2001	9	145	PLANT ANIMAL GENOME

L13 ANSWER 3 OF 7 SCISEARCH COPYRIGHT 2003 THOMSON ISI
AN 2001:830013 SCISEARCH
GA The Genuine Article (R) Number: 482AE
TI The investigation of optimal bombardment parameters for transient and stable transgene expression in sorghum
AU Able J A; Rathus C; Godwin I D (Reprint)
CS Univ Queensland, Sch Land & Food Sci, Brisbane, Qld 4072, Australia (Reprint)
CYA Australia
SO IN VITRO CELLULAR & DEVELOPMENTAL BIOLOGY-PLANT, (MAY-JUN 2001) Vol. 37, No. 3, pp. 341-348.
Publisher: C A B I PUBLISHING, C/O PUBLISHING DIVISION, WALLINGFORD OX10 8DE, OXON, ENGLAND.
ISSN: 1054-5476.
DT Article; Journal
LA English
REC Reference Count: 45
AB This report outlines the development of optimized particle inflow gun (PIG) parameters for producing transgenic sorghum (Sorghum bicolor (L.) Moench). Both transient and stable expression were examined when determining these parameters. The uidA reporter gene (GUS) encoding beta -glucuronidase was used in transient experiments and the green fluorescent protein (GFP) used to monitor stable expression. Initially, optimization was conducted using leaf segments, as the generation of sorghum callus in sufficiently large quantities is time-consuming. Following leaf optimization, experiments were conducted using callus, identifying a high similarity between the two tissue types (r(s) = 0.83). High levels of GUS expression were observed in both leaf and callus material when most distant from the DNA expulsion point, and using a pressure greater than 1800 kPa. A higher level of expression was also observed when the aperture of the helium inlet valve was constricted. Using the optimized conditions (pressure of 2200 kPa, distance to target tissue of 15 cm from the expulsion point, and the aperture of the helium inlet valve at one full turn), three promoters (Ubiquitin, Actin1 and CaMV 35S) were evaluated over a 72-h period using GUS as the reporter gene. A significantly higher number of GUS foci were counted with the Ubiquitin construct over this period, compared to the Actin1 and CaMV 35S constructs. Stable callus sectors (on 2 mg l(-1) bialaphos) with GFP expression were visualized for as long as 6 wk post-bombardment. Using this optimized protocol, several plants were regenerated after having been bombarded with the pAHC20 construct (containing the bar gene), with molecular evidence confirming integration.
CC PLANT SCIENCES; CELL BIOLOGY; DEVELOPMENTAL BIOLOGY
ST Author Keywords: transformation; GUS; green fluorescent protein; particle inflow gun (PIG)
STP KeyWords Plus (R): GREEN FLUORESCENT PROTEIN; PARTICLE INFLOW GUN; MICROPROJECTILE BOMBARDMENT; UBIQUITIN PROMOTER; GENE-EXPRESSION; PLANT-TISSUES; TRANSFORMATION; MAIZE; DNA; MARKER
RE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)
BOWER R	1996	2	239	MOL BREEDING
BOWER R	1992	2	409	PLANT J
CASAS A M	1993	90	11212	P NATL ACAD SCI USA
CASAS A M	1997	33	92	IN VITRO CELL DEV-PL
CHIU W L	1996	6	325	CURR BIOL
CHOWDHURY M K U	1997	16	277	PLANT CELL REP

CHRISTENSEN A H	1996	5	213	TRANSGENIC RES	
CHRISTOU P	1991	9	957	BIO-TECHNOL	
CORNEJO M J	1993	23	567	PLANT MOL BIOL	
DANIELL H	1997		463	METHODS MOL BIOL REC	
DEBLOCK M	1987	6	2513	EMBO J	
DENNEHEY B K	1994	36	1	PLANT CELL TISS ORG	
ELLIS J G	1987	6	11	EMBO J	
FINER J J	1992	11	323	PLANT CELL REP	
FRANKS T	1991	18	471	AUST J PLANT PHYSIOL	
GAMBORG O L	1968	50	151	EXP CELL RES	
GORDONKAMM W J	1990	2	603	PLANT CELL	
HASELOFF J	1997	94	2122	P NATL ACAD SCI USA	
HASELOFF J	1995	11	328	TRENDS GENET	<--
HE D G	1994	14	192	PLANT CELL REP	
HIEI Y	1994	6	271	PLANT J	
HILL M	1995	85	119	EUPHYTICA	<--
JEFFERSON R A	1987	6	3901	EMBO J	
KIKKERT J R	1993	33	221	PLANT CELL TISS ORG	
KNUTZON D S	1992	89	2624	P NATL ACAD SCI USA	
KOHLER R H	1997	276	2039	SCIENCE	
KOHLER R H	1997	11	613	PLANT J	
KONONOWICZ A K	1995	3	171	AFR CROP SCI J	<--
KOZIEL M G	1993	11	194	BIO-TECHNOL	
LAST D I	1991	81	581	THEOR APPL GENET	
LOMONOSSOFF G P	1995	33	323	ANNU REV PHYTOPATHOL	<--
MCELROY D	1991	231	150	MOL GEN GENET	
MEEUSEN R L	1989	34	373	ANNU REV ENTOMOL	
MURASHIGE T	1962	15	473	PHYSIOL PLANTARUM	
ODELL J T	1985	313	810	NATURE	
RATHUS C	1999	46	76	TRANSGENIC CROPS 1 B	
RITALA A	1994	24	317	PLANT MOL BIOL	
ROGERS S O	1985	5	69	PLANT MOL BIOL	
ROSS A H	1995	43	192	AUST J BOT	<--
SAMBROOK J	1989			MOL CLONING LAB MANU	
SCHENK P M	1998	16	313	PLANT MOL BIOL REP	
VAIN P	1993	33	237	PLANT CELL TISS ORG	
VASIL V	1992	10	667	BIO-TECHNOL	
WAN Y C	1994	104	37	PLANT PHYSIOL	
ZHU H	1998	52	243	J GENET BREED	

L13 ANSWER 4 OF 7 SCISEARCH COPYRIGHT 2003 THOMSON ISI
AN 1999:652529 SCISEARCH
GA The Genuine Article (R) Number: 227BB
TI A new **peroxidase** cDNA from white clover: Its characterization and expression in root tissue challenged with homologous rhizobia, heterologous rhizobia, or Pseudomonas syringae
AU Crockard M A (Reprint); Bjourson A J; Cooper J E
CS QUEENS UNIV BELFAST, DEPT APPL PLANT SCI, NEWFORGE LANE, BELFAST BT9 5PX, ANTRIM, NORTH IRELAND (Reprint)
CYA NORTH IRELAND
SO MOLECULAR PLANT-MICROBE INTERACTIONS, (SEP 1999) Vol. 12, No. 9, pp. 825-828.
Publisher: AMER PHYTOPATHOLOGICAL SOC, 3340 PILOT KNOB ROAD, ST PAUL, MN 55121.
ISSN: 0894-0282.
DT Article; Journal
FS LIFE; AGRI
LA English
REC Reference Count: 27
AB Temporal reverse transcription-polymerase chain reaction (RT-PCR) expression analyses were performed on Trprx2, a new white clover **peroxidase**, with roots challenged with homologous rhizobia, heterologous rhizobia, and a pathogen, Pseudomonas syringae. Low levels of

Trprx2 expression were evident in all rhizobial treatments but in P.syringae-treated clover background expression was dramatically reduced within 1 h and was undetectable in treatments inoculated for more than 3 h, Spraying 4 mM salicylic acid onto seedlings increased Trprx2 expression. These data suggest a defensive role for Trprx2 in white clover and indicate active defense suppression by the pathogen.

CC PLANT SCIENCES; BIOTECHNOLOGY & APPLIED MICROBIOLOGY; BIOCHEMISTRY & MOLECULAR BIOLOGY

STP KeyWords Plus (R): SALICYLIC-ACID; MOLECULAR-CLONING; GENE; INFECTION; CELL; INDUCTION; SYMBIOSIS; MELILOTI; DEFENSE; ALFALFA

RE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	
ANDERSON M D	1998	47	555	PHYTOCHEMISTRY	
BAGA M	1995	29	647	PLANT MOL BIOL	<--
BARON C	1995	29	107	ANNU REV GENET	<--
BROWN I	1998	15	333	PLANT J	
BUFFARD D	1996	12	175	WORLD J MICROB BIOT	
CHITTOOR J M	1997	10	861	MOL PLANT MICROBE IN	
COOK D	1995	7	43	PLANT CELL	<--
CURTIS M D	1997	10	326	MOL PLANT MICROBE IN	
DELLEDONNE M	1998	394	585	NATURE	
DJORDJEVIC M A	1987	25	145	ANNU REV PHYTOPATHOL	
ELTURK J	1996	170	213	GENE	
FAHRAEUS G	1957	16	374	J GEN MICROBIOL	
GOORMACHTIG S	1995	8	816	MOL PLANT MICROBE IN	<--
LAWSON C G R	1996	23	93	AUST J PLANT PHYSIOL	
LIANG P	1992	21	4272	SCIENCE	
MARTINEZABARCA F	1998	11	153	MOL PLANT MICROBE IN	
MAUCHMANI B	1998	82	535	ANN BOT-LONDON	
MITTLER R	1998	10	461	PLANT CELL	
PENG H M	1996	112	1437	PLANT PHYSIOL	
PEROTTO S	1994	7	99	MOL PLANT MICROBE IN	
ROSS A H	1995	110	95	PLANT SCI	<--
SALZWEDEL J L	1993	6	127	MOL PLANT MICROBE IN	
SAVOURE A	1994	13	1093	EMBO J	
SAVOURE A	1997	11	277	PLANT J	
SPAINK H P	1995	33	345	ANNU REV PHYTOPATHOL	<--
STAEHELIN C	1992	187	295	PLANTA	
WELINDER K G	1993		35	PLANT PEROXIDASES BI	

L13 ANSWER 5 OF 7 SCISEARCH COPYRIGHT 2003 THOMSON ISI

AN 97:608576 SCISEARCH

GA The Genuine Article (R) Number: XQ342

TI Microprojectile mediated plant transformation: A bibliographic search

AU Luthra R (Reprint); Varsha; Dubey R K; Srivastava A K; Kumar S

CS CENT INST MED & AROMAT PLANTS, CIMAP, PO CIMAP, LUCKNOW 226015, UTTAR PRADESH, INDIA (Reprint)

CYA INDIA

SO EUPHYTICA, (AUG 1997) Vol. 95, No. 3, pp. 269-294.
Publisher: KLUWER ACADEMIC PUBL, SPUIBOULEVARD 50, PO BOX 17, 3300 AA DORDRECHT, NETHERLANDS.
ISSN: 0014-2336.

DT General Review; Journal

FS AGRI

LA English

REC Reference Count: 191

AB This bibliographic search covers the literature till December, 1995 on microprojectile mediated plant transformation, plasmid construct used, and the type of expression obtained, since the inception of the concept by Sanford et al., in 1987.

CC PLANT SCIENCES; AGRICULTURE

ST Author Keywords: bibliography; microprojectile mediated plant transformation

STP KeyWords Plus (R): TRANSIENT GENE-EXPRESSION; DISCHARGE PARTICLE-ACCELERATION; HIGH-VELOCITY MICROPROJECTILES; FERTILE TRANSGENIC WHEAT; BETA-GLUCURONIDASE GENE; SHOOT APICAL MERISTEMS; TOBACCO PLASTID GENOME; COATED GOLD PARTICLES; HELIANTHUS-ANNUUS L; MARIANA FOLLOWING MICROPROJECTION

RF 95-3369 006; TRANSGENIC PLANTS; WOUND RESPONSE GENES IN TOMATO LEAVES; STABLE TRANSFORMATION; JASMONIC ACID; OCTADECANOID DEFENSE SIGNALING PATHWAY

RE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	
ALLEN G C	1993	5	603	PLANT CELL	
ARAGAO F J L	1993	12	483	PLANT CELL REP	
AROKIARAJ P	1994	13	425	PLANT CELL REP	
BANSAL K C	1992	89	3654	P NATL ACAD SCI USA	
BARCELO P	1994	5	583	PLANT J	
BECKER D	1994	5	299	PLANT J	
BIDNEY D	1992	18	301	PLANT MOL BIOL	
BILANG R	1993	4	735	PLANT J	
BOMMINENI V R	1994	45	491	J EXP BOT	
BOMMINENI V R	1993	13	17	PLANT CELL REP	
BRAR G S	1994	5	745	PLANT J	
BROWN D C W	1994	37	47	PLANT CELL TISS ORG	
BRUCE W B	1989	86	9692	P NATL ACAD SCI USA	
BRUCE W B	1990	2	1081	PLANT CELL	
BUISING C M	1994	243	71	MOL GEN GENET	
CAO J	1992	11	586	PLANT CELL REP	
CARRER H	1995	13	791	BIO-TECHNOL	<--
CARRER H	1993	241	49	MOL GEN GENET	
CASAS A M	1993	90	11212	P NATL ACAD SCI USA	
CASTILLO A M	1994	12	1366	BIO-TECHNOL	
CHAREST P J	1993	12	189	PLANT CELL REP	
CHEN J L	1994	88	187	THEOR APPL GENET	
CHIA T F	1994	6	441	PLANT J	
CHIBBAR R N	1991	34	453	GENOME	
CHIBBAR R N	1993	12	506	PLANT CELL REP	
CHOWDHURY M K U	1992	11	494	PLANT CELL REP	
CHRISTOU P	1990	66	379	ANN BOT-LONDON	
CHRISTOU P	1995	75	407	ANN BOT-LONDON	<--
CHRISTOU P	1995	75	449	ANN BOT-LONDON	<--
CHRISTOU P	1991	9	957	BIO-TECHNOL	
CHRISTOU P	1989	86	7500	P NATL ACAD SCI USA	
CHRISTOU P	1988	87	671	PLANT PHYSIOL	
CHRISTOU P	1990	79	337	THEOR APPL GENET	
COOLEY J	1995	90	97	THEOR APPL GENET	<--
CREISSEN G	1990	8	680	PLANT CELL REP	
DANIELL H	1990	87	88	P NATL ACAD SCI USA	
DANIELL H	1991	9	615	PLANT CELL REP	
DEVANTIER Y A	1993	71	1458	CAN J BOT	
DUCHESNE L C	1992	70	175	CAN J BOT	
DUCHESNE L C	1991	10	191	PLANT CELL REP	
DUPUIS I	1993	12	607	PLANT CELL REP	
ECK J M V	1995	14	299	PLANT CELL REP	<--
ELLIS D D	1993	11	84	BIO-TECHNOL	
ELLIS D D	1991	17	19	PLANT MOL BIOL	
FINER J J	1991	27	175	IN VITRO CELL DEV P	
FINER J J	1990	8	586	PLANT CELL REP	
FINER J J	1992	11	323	PLANT CELL REP	
FITCH M M M	1992	10	1466	BIO-TECHNOL	
FITCH M M M	1990	9	189	PLANT CELL REP	

FRANCHE C	1991	17	493	PLANT MOL BIOL	
FRANKS T	1991	18	471	AUST J PLANT PHYSIOL	
FROMM M E	1990	8	833	BIO-TECHNOL	
GALLOMEAGHER M	1993	12	666	PLANT CELL REP	
GAMBLEY R L	1993	12	343	PLANT CELL REP	
GENGA A	1991	45	129	J GENET BREED	
GOFF S A	1990	9	2517	EMBO J	
GOLDFARB B	1991	10	517	PLANT CELL REP	
GORDONKAMM W J	1990	2	603	PLANT CELL	
GRAY D J	1994	37	179	PLANT CELL TISS ORG	
GUOLING N	1995	31	131	CELL DEV BIOL PLANT	<--
HAGIO T	1991	10	260	PLANT CELL REP	
HAGIO T	1995	14	329	PLANT CELL REP	<--
HAMILTON D A	1992	18	211	PLANT MOL BIOL	
HARTMAN C L	1994	12	919	BIO-TECHNOL	
HARWOOD W A	1995	85	113	EUPHYTICA	<--
HEBERT D	1993	12	585	PLANT CELL REP	
HEIM U	1995	15	125	PLANT CELL REP	<--
HENSGENS L A M	1993	22	1101	PLANT MOL BIOL	
HILL M	1995	85	119	EUPHYTICA	<--
HUNOLD R	1994	5	593	PLANT J	
HUNOLD R	1995	105	95	PLANT SCI	<--
IGLESIAS V A	1994	192	84	PLANTA	
IIDA A	1990	33	560	APPL MICROBIOL BIOT	
IIDA A	1995	14	539	PLANT CELL REP	<--
IIDA A	1991	97	1585	PLANT PHYSIOL	
IIDA A	1990	80	813	THEOR APPL GENET	
JAHNE A	1994	89	525	THEOR APPL GENET	
KAMO K	1995	110	105	PLANT SCI	<--
KARTHA K K	1989	8	429	PLANT CELL REP	
KAUSCH A P	1995	196	501	PLANTA	<--
KING S P	1994	30	117	IN VITRO CELL DEV	
KLEIN T M	1988	6	559	BIOTECHNOLOGY	
KLEIN T M	1987	327	70	NATURE	
KLEIN T M	1988	85	8502	P NATIONAL ACADEMY S	
KLEIN T M	1988	85	4305	P NATL ACAD SCI USA	
KLEIN T M	1989	91	440	PLANT PHYSIOL	
KNITTEL N	1994	14	81	PLANT CELL REP	
KOZIEL M G	1993	11	194	BIO-TECHNOL	
KUEHNLE A R	1992	11	484	PLANT CELL REP	
KUNDSEN S	1991	185	330	PLANTA	
LAMBE P	1995	108	51	PLANT SCI	<--
LAPARRA H	1995	85	63	EUPHYTICA	<--
LI L C	1993	12	250	PLANT CELL REP	
LI Y H	1994	13	661	PLANT CELL REP	
LOEB T A	1994	104	81	PLANT SCI	
LONSDALE D	1990	41	1161	J EXP BOT	
LOWE K	1995	13	677	BIO-TECHNOL	<--
MAHN A	1995	46	1625	J EXP BOT	<--
MARTINUSSEN I	1994	92	412	PHYSIOL PLANTARUM	
MARTINUSSEN I	1995	93	445	PHYSIOL PLANTARUM	<--
MCCABE D E	1993	11	596	BIO-TECHNOL	
MCCABE D E	1988	6	923	BIOTECHNOLOGY	
MCCOWN B H	1991	9	590	PLANT CELL REP	
MCELROY D	1991	231	150	MOL GEN GENET	
MCELROY D	1990	2	163	PLANT CELL	
MENDEL R R	1989	78	31	THEOR APPL GENET	
MOORE P J	1994	13	556	PLANT CELL REP	
MORIKAWA H	1989	31	320	APPL MICROBIOL BIOT	
MURRY L E	1993	11	1559	BIO-TECHNOL	
NEHRA N S	1994	5	285	PLANT J	
NEWTON R J	1992	11	188	PLANT CELL REP	
NISHIHARA M	1993	102	357	PLANT PHYSIOL	

NISHIHARA M	1995	4	341	TRANSGENIC RES	<--
OARD J H	1990	92	334	PLANT PHYSIOL	
OZIASAKINS P	1993	93	185	PLANT SCI	
PEREIRA L F	1995	14	290	PLANT CELL REP	<--
PEREZVICENTE R	1993	142	610	J PLANT PHYSIOL	
PERL A	1992	235	279	MOL GEN GENET	
PRAKASH C S	1992	11	53	PLANT CELL REP	
RASMUSSEN J L	1994	13	212	PLANT CELL REP	
RATNAYAKA I J S	1995	14	794	PLANT CELL REP	<--
REGGIARDO M I	1991	75	237	PLANT SCI	
REGISTER J C	1994	25	951	PLANT MOL BIOL	
RITALA A	1995	85	81	EUPHYTICA	<--
RITALA A	1993	12	435	PLANT CELL REP	
RITALA A	1994	24	317	PLANT MOL BIOL	
ROBERTSON D	1992	19	925	PLANT MOL BIOL	
ROCHANGE F	1995	14	674	PLANT CELL REP	<--
ROSS A H	1995	43	193	AUST J BOT	<--
RUSSELL D A	1993	13	24	PLANT CELL REP	
RUSSELL D R	1993	12	165	PLANT CELL REP	
RUSSELL J A	1992	98	1050	PLANT PHYSIOL	
SAGI L	1995	13	481	BIO-TECHNOL	<--
SAGI L	1995	85	89	EUPHYTICA	<--
SATO S	1993	12	408	PLANT CELL REP	
SAUTTER C	1991	9	1080	BIO-TECHNOL	
SAUTTER C	1995	85	45	EUPHYTICA	<--
SCHAEFFER H J	1995	28	205	PLANT MOL BIOL	<--
SCHNALL J A	1993	12	316	PLANT CELL REP	
SCHULZE J	1995	112	197	PLANT SCI	<--
SCORZA R	1995	14	589	PLANT CELL REP	<--
SEKI M	1991	36	228	APPL MICROBIOL BIOT	
SEKI M	1991	17	259	PLANT MOL BIOL	
SEMERIA L	1995	85	125	EUPHYTICA	<--
SERRES R	1992	117	174	J AM SOC HORTIC SCI	
SOMERS D A	1992	10	1589	BIO-TECHNOL	
SPANGENBERG G	1995	145	693	J PLANT PHYSIOL	<--
SPANGENBERG G	1995	108	209	PLANT SCI	<--
SPENCER T M	1990	79	625	THEOR APPL GENET	
STAUB J M	1993	12	601	EMBO J	
STAUB J M	1992	4	39	PLANT CELL	
STIFF C M	1995	40	243	PLANT CELL TISS ORG	<--
STOGER E	1995	14	273	PLANT CELL REP	<--
STOMP A M	1991	10	187	PLANT CELL REP	
SVAB Z	1990	87	8526	P NATL ACAD SCI USA	
TAGU D	1992	20	529	PLANT MOL BIOL	
TAKEUCHI Y	1992	18	835	PLANT MOL BIOL	
TAKUMI S	1994	103	161	PLANT SCI	
TANAKA T	1995	28	337	PLANT MOL BIOL	<--
TAYLOR M G	1991	10	120	PLANT CELL REP	
TAYLOR M G	1993	12	491	PLANT CELL REP	
TOMES D T	1990	14	261	PLANT MOL BIOL	
TOR M	1993	12	468	PLANT CELL REP	
TORBERT K A	1995	14	635	PLANT CELL REP	<--
TWELL D	1989	91	1270	PLANT PHYSIOL	
VAIN P	1993	12	84	PLANT CELL REP	
VANBOXTEL J	1995	14	748	PLANT CELL REP	<--
VANDERLEEDEPLEG.LM	1992	11	20	PLANT CELL REP	
VANDERLEEDEPLEG.LM	1995	4	77	TRANSGENIC RES	<--
VANDERMAAS H M	1994	24	401	PLANT MOL BIOL	
VASIL V	1991	9	743	BIO-TECHNOL	
VASIL V	1992	10	667	BIO-TECHNOL	
VASIL V	1993	11	1553	BIO-TECHNOL	
WALTER C	1994	14	69	PLANT CELL REP	
WALTERS D A	1992	18	189	PLANT MOL BIOL	

WAN Y	1995	196	7	PLANTA	<--
WAN Y C	1994	104	37	PLANT PHYSIOL	
WANG Y C	1988	11	433	PLANT MOL BIOL	
WARKENTIN T D	1992	87	171	PLANT SCI	
WEEKS J T	1993	102	1077	PLANT PHYSIOL	
WILDE H D	1992	98	114	PLANT PHYSIOL	
WILMINK A	1992	11	76	PLANT CELL REP	
YAMASHITA T	1991	97	829	PLANT PHYSIOL	
YAO J L	1996	113	175	PLANT SCI	
YE G N	1990	15	809	PLANT MOL BIOL	
YE X J	1994	119	367	J AM SOC HORTIC SCI	
YEPES L M	1995	14	694	PLANT CELL REP	<--
ZHONG H	1993	13	1	PLANT CELL REP	
ZIMMY J	1995	1	155	MOL BREEDING	<--
ZOUBENKO O V	1994	22	3819	NUCLEIC ACIDS RES	
ZUKER A	1995	64	177	SCI HORTIC-AMSTERDAM	<--

L13 ANSWER 6 OF 7 SCISEARCH COPYRIGHT 2003 THOMSON ISI
AN 97:453040 SCISEARCH
GA The Genuine Article (R) Number: XD140
TI Plant transformation: Problems and strategies for practical application
AU Birch R G (Reprint)
CS UNIV QUEENSLAND, DEPT BOT, BRISBANE, QLD 4072, AUSTRALIA (Reprint)
CYA AUSTRALIA
SO ANNUAL REVIEW OF PLANT PHYSIOLOGY AND PLANT MOLECULAR BIOLOGY, (MAY 1997) Vol. 48, pp. 297-326.
Publisher: ANNUAL REVIEWS INC, 4139 EL CAMINO WAY, PO BOX 10139, PALO ALTO, CA 94303-0139.
ISSN: 0066-4294.
DT General Review; Journal
FS LIFE; AGRI
LA English
REC Reference Count: 164
AB Plant transformation is now a core research tool in plant biology and a practical tool for cultivar improvement. There are verified methods for stable introduction of novel genes into the nuclear genomes of over 120 diverse plant species. This review examines the criteria to verify plant transformation; the biological and practical requirements for transformation systems; the integration of tissue culture, gene transfer, selection, and transgene expression strategies to achieve transformation in recalcitrant species; and other constraints to plant transformation including regulatory environment, public perceptions, intellectual property, and economics. Because the costs of screening populations showing diverse genetic changes can far exceed the costs of transformation, it is important to distinguish absolute and useful transformation efficiencies. The major technical challenge facing plant transformation biology is the development of methods and constructs to produce a high proportion of plants showing predictable transgene expression without collateral genetic damage. This will require answers to a series of biological and technical questions, some of which are defined.
CC PLANT SCIENCES; BIOCHEMISTRY & MOLECULAR BIOLOGY
ST Author Keywords: plant improvement; gene transfer; transgenic plants; transgene expression; genetic engineering
STP KeyWords Plus (R): TRANSGENIC TOBACCO PLANTS; MEDIATED GENE-TRANSFER; T-DNA; AGROBACTERIUM-TUMEFACIENS; MICROPROJECTILE BOMBARDMENT; FOREIGN GENES; INTELLECTUAL PROPERTY; PARTICLE BOMBARDMENT; MAIZE PLANTS; STABLE TRANSFORMATION
RF 95-3369 002; TRANSGENIC PLANTS; WOUND RESPONSE GENES IN TOMATO LEAVES; STABLE TRANSFORMATION; JASMONIC ACID; OCTADECANOID DEFENSE SIGNALING PATHWAY
95-2449 001; PLANT EMBRYOGENESIS; ARABIDOPSIS EMBRYO; ROOT APEX; CELL PATTERN; AXIS FORMATION
RE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	
ANON	1993	4	253	CURR OPIN BIOTECH	
AITKEN C J	1995			AUTOMATION ENV CONTR	<--
ALBERT H	1995	7	649	PLANT J	<--
AN G H	1989	1	115	PLANT CELL	
ARDLEY J	1996	14	67	TRENDS BIOTECHNOL	
BAKER B F	1993		37	ANTISENSE RES APPL	
BARKS A H	1994	12	352	TRENDS BIOTECHNOL	
BECHTOLD N	1993	316	1194	CR ACAD SCI III-VIE	
BENEDIKTSSON I	1995	85	53	EUPHYTICA	<--
BENFEY P N	1990	9	1685	EMBO J	
BENNETT J	1993	15	165	GENETIC ENG	
BIDNEY D	1992	18	301	PLANT MOL BIOL	
BIRCH R G	1991	18	453	AUST J PLANT PHYSIOL	
BIRCH R G	1996	2	368	P INT SOC SUG TECHN	
BIRCH R G	1994		3	PARTICLE BOMBARDMENT	
BOURQUE J E	1995	105	125	PLANT SCI	<--
BOWER R	1996	2	239	MOL BREEDING	
BOWER R	1992	2	409	PLANT J	
BOWERING N	1993	1	89	ST VAC ULTRAV XRAY P	
BUISING C M	1994	243	71	MOL GEN GENET	
CAO J	1992	11	586	PLANT CELL REP	
CARRER H	1995	13	791	BIO-TECHNOL	<--
CASKEY C T	1996	14	298	TRENDS BIOTECHNOL	
CHANG S S	1994	5	551	PLANT J	
CHOW M	1992	4	629	CURR OPIN CELL BIOL	
CHRISTOU P	1995	85	13	EUPHYTICA	<--
CHRISTOU P	1992	2	275	PLANT J	
CHRISTOU P	1992	2	283	PLANT J	
CHRISTOU P	1992	10	239	TRENDS BIOTECHNOL	
COLLINS G B	1996	792		ANN NY ACAD SCI	
CORUZZI G	1994			PLANT MOL BIOL MOL G	
DALE E C	1991	88	10558	P NATL ACAD SCI USA	
DALE P J	1995	13	398	TRENDS BIOTECHNOL	<--
DEBLOCK M	1984	3	1681	EMBO J	
DEBLOCK M	1993	71	1	EUPHYTICA	
DEBLOCK M	1989	91	694	PLANT PHYSIOL	
DEBLOCK M	1995	197	619	PLANTA	<--
DELOOSE M	1995	85	209	EUPHYTICA	<--
DRAPER J	1988			PLANT GENETIC TRANSF	
ELLIS J R	1993		253	PLANT MOL BIOL LABFA	
ENAYATI E	1995	13	460	BIO-TECHNOL	<--
ENGEL K H	1995			GENETICALLY MODIFIED	<--
FELDMANN K A	1991	1	71	PLANT J	
FINNEGAN J	1994	12	883	BIOTECHNOLOGY	
FIREK S	1994	3	326	TRANSGENIC RES	
FRANKS T	1991		103	ADV METHODS PLANT BR	
FROMM M E	1990	8	833	BIO-TECHNOL	
GAD A E	1990	79	177	PHYSIOL PLANTARUM	
GAFNI Y	1995	20	98	LETT APPL MICROBIOL	<--
GAMBLEY R L	1994	21	603	AUST J PLANT PHYSIOL	
GAMBORG O L	1995			PLANT CELL TISSUE OR	<--
GARTLAND K M A	1995	44		AGROBACTERIUM PROTOC	<--
GATEHOUSE A M R	1992			PLANT GENETIC MANIPU	
GEBALLE A P	1994	19	159	TRENDS BIOCHEM SCI	
GIL P	1996	15	1678	EMBO J	
GLICK B R	1993			METHODS PLANT MOL BI	
GOMORD V	1996	34	165	PLANT PHYSIOL BIOCH	
GRANT J E	1991		50	ADV METHODS PLANT BR	
GREVELDING C	1993	23	847	PLANT MOL BIOL	
GRIERSON D	1991			PLANT GENETIC ENG	

HADI M Z	1996	15	500	PLANT CELL REP	
HALLMAN W K	1996	14	35	BIOTECHNOLOGY	
HAMILTON C M	1996	93	9975	P NATL ACAD SCI USA	
HAQ T A	1995	268	714	SCIENCE	<--
HENSGENS L A M	1992	20	921	PLANT MOL BIOL	
HERBERS K	1996	14	19	TRENDS BIOTECHNOL	
HICKS G R	1995	107	1055	PLANT PHYSIOL	<--
HIEI Y	1994	6	271	PLANT J	
HINCHEE M A W	1993	1	243	TRANSGENIC PLANTS	
HOOYKAAS P J J	1992	19	15	PLANT MOL BIOL	
HORSCH R B	1993	342	287	PHILOS T ROY SOC B	
HORSCH R B	1984	223	496	SCIENCE	
HOYLE R	1996	14	680	NAT BIOTECHNOL	
ISHIDA Y	1996	14	745	NAT BIOTECHNOL	
JAHNE A	1995	85	35	EUPHYTICA	<--
JANSSEN B J	1989	14	61	PLANT MOL BIOL	
JASIN M	1996	93	8804	P NATL ACAD SCI USA	
JENES B	1993	1	125	TRANSGENIC PLANTS	
KARP A	1995	85	295	EUPHYTICA	<--
KEEGSTRA K	1995	93	157	PHYSIOL PLANTARUM	<--
KIM J W	1996	117	131	PLANT SCI	
KJELDGAARD R H	1994	6	1524	PLANT CELL	
KLEIN B	1990		79	PROGR PLANT CELLULAR	
KONCZ C	1989	86	8467	P NATL ACAD SCI USA	
KOZIEL M G	1993	11	194	BIO-TECHNOL	
KOZIEL M G	1996		164	ENG PLANTS COMMERCIA	
KUNG S	1993	1		TRANSGENIC PLANTS	
LAPARRA H	1995	85	63	EUPHYTICA	<--
LEBEL E G	1995	91	899	THEOR APPL GENET	<--
LI H Q	1996	14	736	NAT BIOTECHNOL	
LICHTENSTEIN M	1994	76	913	CELL	
LIN J J	1995	109	171	PLANT SCI	<--
LINDSEY K	1993	2	33	TRANSGENIC RES	
LIVINGSTONE D M	1995	22	585	AUST J PLANT PHYSIOL	<--
LUEHRSEN K R	1991	225	81	MOL GEN GENET	
LUEHRSEN K R	1994	13	454	PLANT CELL REP	
MAAS C	1991	16	199	PLANT MOL BIOL	
MAHESWARAN G	1992	139	560	J PLANT PHYSIOL	
MATZKE M A	1995	107	679	PLANT PHYSIOL	<--
MCBRIDE K E	1995	13	362	BIO-TECHNOL	<--
MCCABE D E	1993	11	596	BIO-TECHNOL	
MCELROY D	1996	14	715	NAT BIOTECHNOL	
MEYER P	1995	85	359	EUPHYTICA	<--
MILLER H I	1995	13	123	TRENDS BIOTECHNOL	<--
MOL J N M	1995	13	350	TRENDS BIOTECHNOL	<--
MURRAY D R	1991			ADV METHODS PLANT BR	
NARASIMHULU S B	1996	8	873	PLANT CELL	
NAWRATH C	1995	1	105	MOL BREEDING	<--
NEGRUTIU I	1990	79	197	PHYSIOL PLANTARUM	
NEUHAUS G	1990	79	213	PHYSIOL PLANTARUM	
NEUHAUS J M	1996	34	217	PLANT PHYSIOL BIOCH	
NEWBIGIN E	1995	13	338	TRENDS BIOTECHNOL	<--
PALMGREN G	1993	21	429	PLANT MOL BIOL	
PASZKOWSKI J	1984	3	2717	EMBO J	
PASZKOWSKI J	1994			HOMOLOGOUS RECOMBINA	
PEACH C	1991	17	49	PLANT MOL BIOL	
PEET R C	1995			PROTECTION PLANT REL	<--
PERI A	1996	14	624	NAT BIOTECHNOL	
PERLAK F J	1991	88	3324	P NATL ACAD SCI USA	
POTRYKUS I	1991	42	205	ANNU REV PLANT PHYS	
POTRYKUS I	1995			GENE TRANSFER PLANTS	<--
REICHEL C	1996	93	5888	P NATL ACAD SCI USA	
RICHARDSON J P	1993	28	1	CRIT REV BIOCHEM MOL	

RITCHIE S W	1993	1	147	TRANSGENIC PLANTS	
ROSS A H	1995	43	193	AUST J BOT	<--
RUSSELL D R	1993	12	165	PLANT CELL REP	
SCHOPKE C	1996	14	731	NAT BIOTECHNOL	
SHAH D M	1995	13	362	TRENDS BIOTECHNOL	<--
SHEN W H	1994	5	227	PLANT J	
SHIMAMOTO K	1989	338	274	NATURE	
SONGSTAD D D	1995	40	1	PLANT CELL TISS ORG	<--
SPIKER S	1996	110	15	PLANT PHYSIOL	
STASKAWICZ B J	1995	268	661	SCIENCE	<--
STONE R	1995	268	656	SCIENCE	<--
SUN S S M	1990	1	339	TRANSGENIC PLANTS	
TEPFER D	1990	79	140	PHYSIOL PLANTARUM	
THEOLOGIS A	1994	5	152	CURR OPIN BIOTECH	
TURNER R	1995	3	225	MOL BIOTECHNOL	<--
VANCANNEYT G	1990	220	245	MOL GEN GENET	
VANDERGRAAFF E	1996	31	677	PLANT MOL BIOL	
VANDERHOEVEN C	1994	3	159	TRANSGENIC RES	
VANWORDRAGEN M F	1992	10	12	PLANT MOL BIOL REP	
VARNER J E	1995		79	METHODS PLANT MOL BI	<--
VASIL I K	1994			PLANT CELL TISSUE CU	
VONBODMAN S B	1995	13	587	BIO-TECHNOL	<--
WALDEN R	1995	13	324	TRENDS BIOTECHNOL	<--
WAN Y C	1994	104	37	PLANT PHYSIOL	
WEBBER G D	1995			BIOTECHNOLOGY INFORM	<--
WEEKS J T	1993	102	1077	PLANT PHYSIOL	
WILLIAMS K M	1994	12	297	BIO-TECHNOL	
WILMINK A	1993	11	165	PLANT MOL BIOL REP	
WU L	1995	8	323	PLANT J	<--
YODER J I	1994	12	883	BIOTECHNOLOGY	
ZADOKS J C	1979		331	EPIDEMIOLOGY PLANT D	
ZUPAN J R	1995	107	1041	PLANT PHYSIOL	<--

STN Patent No. (RPN)	Year (RPY)	Ref. Inventor/Assignee (RIN)	Type	Ref. Patent No. (RPN)
EP 342926	1994	QUAIL P H		EP 342926
AT 621561	1992	SANFORD J C		AU 621561
US 4940838	1990	SCHILPEROORT R A		US 4940838
US 4954050	1990	SANFORD J C		US 4954050
US 5451513	1995	MALIGA P		US 5451513
US 5453367	1995	PASZKOWSKI J		US 5453367
US 5464765	1995	COFFEE R A		US 5464765
US 5472869	1995	KRYZYZEK R		US 5472869
WO 9400977	1994	HIEI Y		WO 9400977

L13 ANSWER 7 OF 7 SCISEARCH COPYRIGHT 2003 THOMSON ISI
AN 97:270014 SCISEARCH
GA The Genuine Article (R) Number: WQ788
TI A **peroxidase** gene promoter induced by phytopathogens and methyl jasmonate in transgenic plants
AU Curtis M D; Rae A L; Rusu A G; Harrison S J; Manners J M (Reprint)
CS UNIV QUEENSLAND, COOPERAT RES CTR TROP PLANT PATHOL, JOHN HINES BLDG, BRISBANE, QLD 4072, AUSTRALIA (Reprint); UNIV QUEENSLAND, COOPERAT RES CTR TROP PLANT PATHOL, BRISBANE, QLD 4072, AUSTRALIA; CSIRO, DIV TROP AGR, CUNNINGHAM LAB, ST LUCIA, QLD 4067, AUSTRALIA
CYA AUSTRALIA
SO MOLECULAR PLANT-MICROBE INTERACTIONS, (APR 1997) Vol. 10, No. 3, pp. 326-338.
Publisher: AMER PHYTOPATHOLOGICAL SOC, 3340 PILOT KNOB ROAD, ST PAUL, MN 55121.
ISSN: 0894-0282.
DT Article; Journal

FS LIFE; AGRI
LA English
REC Reference Count: 57

AB The expression of two closely related **peroxidase** isogenes, Shpx6a and Shpx6b, of the legume Stylosanthes humilis was studied using isogene-specific reverse transcriptase PCR techniques. Results indicated that transcripts of both genes were rapidly induced following inoculation with the fungal pathogen Colletotrichum gloeosporioides, wounding and treatment with the defense regulator methyl jasmonate (MeJA). In contrast, treatment of leaves of S. humilis with abscisic acid (ABA) and salicylic acid (SA) did not induce transcripts of either isogene. A genomic clone containing the Shpx6b gene was isolated and 594 bp of 5' sequence upstream of the translation start was fused in frame to the coding region of the uidA reporter gene and introduced into tobacco. Expression from the Shpx6b promoter in transgenic plants was determined by histochemical staining and quantitative assays of beta-glucuronidase (GUS). In transgenic tobacco, GUS expression was detected in cotyledons, vascular cells of young leaves, anthers, pollen, and the stigma and style. Wounding of the tobacco plants produced very localized GUS staining. Much more extensive staining for GUS was observed following inoculation of tobacco leaves with conidia of the fungal pathogen Cercospora nicotianae and the inoculation of wound sites with mycelium of the Oomycete pathogen Phytophthora parasitica var. nicotianae. Treatment of mature leaves with methyl jasmonate induced GUS activity while treatment with ABA, SA, and H2O2 had no effect. A similar strong induction of GUS activity was measured in young transgenic seedlings germinated on MeJA while some, but much weaker, induction of GUS activity was observed in seedlings treated with SA. The sequence of the promoter contained motifs homologous to putative cis elements in other plant genes responsive to MeJA. The Shpx6b gene is the first plant **peroxidase** gene shown to be induced by both microbial pathogens and MeJA and its promoter will be useful for investigations of signaling processes during fungal infection and for the expression of foreign gene products at infection sites.

CC PLANT SCIENCES; BIOTECHNOLOGY & APPLIED MICROBIOLOGY; BIOCHEMISTRY & MOLECULAR BIOLOGY
ST Author Keywords: Nicotiana tabacum
STP KeyWords Plus (R): PATHOGENESIS-RELATED PROTEIN-1A; LEGUME STYLOSANTHES HUMILIS; RNA-POLYMERASE-II; F-SP HORDEI; COLLETOTRICHUM-GLOEOSPORIOIDES; ERYSIPHE-GRAMINIS; MESSENGER-RNAS; 2,6-DICHLOROISONICOTINIC ACID; ACQUIRED-RESISTANCE; SALICYLIC-ACID

RF 95-3369 003; TRANSGENIC PLANTS; WOUND RESPONSE GENES IN TOMATO LEAVES; STABLE TRANSFORMATION; JASMONIC ACID; OCTADECANOID DEFENSE SIGNALING PATHWAY
95-2613 002; LIGHT-REGULATED EXPRESSION IN TRANSGENIC TOBACCO; GENES ENCODING HMG-COA REDUCTASE; PROMOTER ELEMENTS
95-1130 001; SALICYLIC-ACID SIGNAL IN PLANT DEFENSE RESPONSES; SYSTEMIC ACCUMULATION OF PATHOGENESIS-RELATED PROTEINS; HYPERSENSITIVE DISEASE RESISTANCE; ACTIVE OXYGEN
95-3190 001; INCREASED ABUNDANCE OF SPECIFIC SKELETAL-MUSCLE PROTEIN-TYROSINE PHOSPHATASES; ALPHA-B-CRYSTALLIN EXPRESSION
95-3260 001; ABSCISIC-ACID RESPONSE ELEMENTS; STRESS PROTEINS; GENE IN ARABIDOPSIS-THALIANA; DIFFERENTIAL EXPRESSION; POTENTIAL REGULATION; DESICCATION TOLERANCE
95-5061 001; STRUCTURAL GENE; GLTC-DEPENDENT REGULATION OF BACILLUS-SUBTILIS GLUTAMATE SYNTHASE EXPRESSION; ARABIDOPSIS TYPE-1 PROTEIN PHOSPHATASE
95-6027 001; SOMATIC EMBRYOGENESIS; CELL-SUSPENSION CULTURES; MULTIPLE SHOOT REGENERATION
95-7181 001; EXPRESSION OF THE ARABIDOPSIS-THALIANA ACONITASE GENE; RICE CDNA SEQUENCES ENCODING PUTATIVE CALCIUM-DEPENDENT PROTEIN-KINASES

RE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)

ASO T	1994	269	26575	J BIOL CHEM	
BARON C	1995	29	107	ANNU REV GENET	<--
BRADFORD M M	1976	72	248	ANAL BIOCHEM	
BRADLEY D J	1992	70	21	CELL	
COOK D	1995	7	43	PLANT CELL	<--
CORNELISSEN B J C	1986	5	37	EMBO J	
CREELMAN R A	1992	89	4938	P NATL ACAD SCI USA	
CURTIS M D	1995	108	1303	PLANT PHYSIOL	<--
DURNER J	1995	92	11312	P NATL ACAD SCI USA	<--
EPPLE P	1995	109	813	PLANT PHYSIOL	<--
FARMER E E	1990	87	7713	P NATL ACAD SCI USA	
FARMER E E	1992	4	129	PLANT CELL	
GEBALLE A P	1994	19	159	TRENDS BIOCHEM SCI	
HARRISON S J	1995	8	398	MOL PLANT MICROBE IN	<--
HINDMANN T	1992	4	1157	PLANT CELL	
HORSCH R B	1985	227	1227	SCIENCE	
IRVING H R	1990	37	355	PHYSIOL MOL PLANT P	
IRWIN J A G	1984	32	631	AUST J BOT	
JEFFERSON R A	1987	6	3901	EMBO J	
JEFFERSON R A	1987	5	387	PLANT MOL BIOL REPOR	
JONES G L	1995	99	567	MYCOL RES	<--
JOSHI C P	1987	15	6643	NUCLEIC ACIDS RES	
KAWAOKA A	1994	6	87	PLANT J	
KEANE P J	1988	17	37	AUSTRALAS PLANT PATH	
KERBY K	1989	35	323	PHYSIOL MOL PLANT P	
KIM S R	1992	99	627	PLANT PHYSIOL	
KOBAYASHI A	1994	49	411	Z NATURFORSCH C	
LAZO G R	1991	9	963	BIOTECHNOLOGY	
MANNERS J M	1985	26	297	PHYSIOL PLANT PATHOL	
MASON H S	1993	5	241	PLANT CELL	
MEYER A	1984	3	1	J PLANT GROWTH REGUL	
MORRIS D R	1993	32	2931	BIOCHEMISTRY-US	
MURASHIGE T	1962	15	473	PHYSL PLANTARUM	
NAGEL R	1990	67	325	FEMS MICROBIOL LETT	
OGLE H J	1990	80	837	PHYTOPATHOLOGY	
PENG M	1992	82	696	PHYTOPATHOLOGY	
PENNINCKX I A M	1996	8	2309	PLANT CELL	
REINBOTHE S	1992	86	49	PHYSIOL PLANTARUM	
ROBIN C	1994	22	159	NEW ZEAL J CROP HORT	
ROSS A H	1995	110	95	PLANT SCI	<--
RYALS J	1994	104	1109	PLANT PHYSIOL	
SAMBROOK J	1989			MOL CLONING LABORATO	
SCHINDLER U	1992	11	1261	EMBO J	
SEMBDNER G	1993	44	569	ANN REV PLANT PHYSL	
SHERF B A	1993	101	201	PLANT PHYSIOL	
STAIGER D	1989	86	6930	P NATL ACAD SCI USA	
THORDALCHRISTEN.H	1992	40	395	PHYSIOL MOL PLANT P	
TYSON H	1992	84	643	THEOR APPL GENET	
UKNES S	1992	4	645	PLANT CELL	
UKNES S	1993	5	159	PLANT CELL	
VERNOOIJ B	1995	8	228	MOL PLANT MICROBE IN	<--
WALTER M H	1992		327	GENES INVOLVED PLANT	
WEIS L	1992	6	3300	FASEB J	
WILLIAMS M E	1992	4	485	PLANT CELL	
XU Y	1994	6	1077	PLANT CELL	
YE X S	1990	36	523	PHYSIOL MOL PLANT P	
ZHU Q	1994	12	807	BIO-TECHNOL	